

David A. Leligdon
Precoat Metals
1310 Papin Street, Third Floor
St. Louis, Missouri 63103

Re: **127-11786**
Significant Permit Modification to:
Part 70 Permit No.: **T 127-6025-00005**

Dear Mr. Leligdon:

Precoat Metals division Sequa Coatings Corporation was issued Part 70 Operating Permit **T 127-6025-00005** on February 10, 1999 for a metal coil coating source. An application to modify the source was received on November 29, 1999. Pursuant to 326 IAC 2-7-12, a Significant Permit Modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the addition of a chemical coater, a gas-fired infrared oven, a natural gas-fired process boiler and a direct flame finish oxidizer. The changes are as follows with deletions appearing as ~~strikeouts~~ and new language in **bold**:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]
[326 IAC 2-7-5(15)]

This stationary metal coil coating source consists of the following emission units and pollution control devices:

- (1) One (1) coil coating line consisting of the following:
 - (b) A Finish Coating Section (FCS), constructed in 1971, consisting of one (1) finish coater, identified as EU5, with a maximum capacity of 1142 lb VOC/hr, using one (1) **direct flame finish oxidizer, rated at 30.0 million British thermal units per hour, 4.25 mmBtu/hr multiple chamber regenerative thermal oxidizer**, identified as EU8/CE-2, as control with a maximum capacity of 3.75 gal VOC/min **with heat exhausting to a waste heat boiler exhausting to stack S-14**, one (1) 37.6 mmBtu/hr finish curing oven, identified as EU6, all exhausting to one (1) stack, identified as S-3, and one (1) finish water cooler, identified as EU7, exhausting to one (1) stack, identified as S-4.
- (2) ~~One (1) 10.99 mmBtu/hr natural gas process boiler, identified as EU9, constructed in 1971, exhausting to one (1) stack, identified as S-5.~~ **One (1) natural gas-fired process boiler, identified as EU9, rated at 25.1 million British thermal units per hour, exhausting to Stack S-5.**

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]

This stationary metal coil coating source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (1) Natural gas fired combustion sources with heat input equal to or less than ten (10) million Btu per hour.

~~(a) One (1) 9.7 mmBtu/hr waste heat boiler.~~
- (2) One (1) lime slurry mix tank, capable of mixing hydrated lime at a rate of 500 pounds per hour, using a baghouse to control the PM emissions.
- (3) One (1) chemical pretreatment section including two (2) alkaline cleaners, two (2) scrubber brushes, two (2) hot water rinses, two (2) chemical treatments and one (1) final chemical rinse. An exhaust hood conveys water vapor from the cleaners, scrubber brushes and hot water rinse tanks.
- (4) **One (1) chemical coater for applying non-organic coatings and one (1) gas-fired infrared oven for drying the applied non-organic coatings, identified as EU11, exhausting to Stack S-13.**

C.21 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a **Quarterly** ~~Semi-annual~~ Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported.
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any **Quarterly** ~~semi-annual~~ report shall be submitted within thirty (30) days of the end of the reporting period.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (1) One (1) coil coating line consisting of the following:
- (a) A Prime Coating Section (PCS), constructed in 1971, consisting of one (1) prime coater, identified as EU1, with a maximum capacity of 883 lb VOC/hr, using one (1) 18.2 mmBtu/hr recuperative thermal oxidizer, identified as EU4/CE-1, as control with a maximum capacity of 2.0 gal VOC/min, one (1) 33.6 mmBtu/hr prime curing oven, identified as EU2, all exhausting to one (1) stack, identified as S-1, and one (1) prime water cooler, identified as EU3, exhausting to one (1) stack, identified as S-2.
 - (b) A Finish Coating Section (FCS), constructed in 1971, consisting of one (1) finish coater, identified as EU5, with a maximum capacity of 1142 lb VOC/hr, using one (1) **direct flame finish oxidizer, rated at 30.0 million British thermal units per hour** ~~4.25 mmBtu/hr multiple chamber regenerative thermal oxidizer~~, identified as EU8/CE-2, as control with a maximum capacity of 3.75 gal VOC/min **with heat exhausting to a waste heat boiler exhausting to stack S-14**, one (1) 37.6 mmBtu/hr finish curing oven, identified as EU6, all exhausting to one (1) stack, identified as S-3, and one (1) finish water cooler, identified as EU7, exhausting to one (1) stack, identified as S-4.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Coil Coating Operations [326 IAC 8-2-4] [326 IAC 8-1-2]

- (a) Pursuant to OP No. 3420-0005-0262, issued on October 31, 1990 and 326 IAC 8-2-4 (Coil Coating Operations), the VOC discharged into the atmosphere from the coil coating line shall not exceed of 0.31 kilograms per liter of coating (2.6 pounds per gallon) excluding water.
- (b) When operating either the recuperative thermal oxidizer, identified as EU4/CE-1 and/or the **direct flame finish oxidizer** ~~multiple chamber regenerative thermal oxidizer~~, identified as EU8/CE-2 for VOC control as required by 326 IAC 8-1-2 (a)(2) to achieve the above limit in (a) for rule 326 IAC 8-2-4, a minimum overall control efficiency of 74.00% must be maintained. Based upon 326 IAC 8-1-2(c) and the overall control efficiency of 74.00%, the daily weighted average VOC content of all the coatings shall not exceed 15.46 pounds of VOC per gallon of coating solids as applied.

D.1.2 General Provisions Relating to NSPS [326 IAC 12-1-1] [40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 60, Subpart TT.

D.1.3 Metal Coil Surface Coating NSPS [326 IAC 12-1-1] [40 CFR 60, Subpart TT]

This coil coating line is subject to 40 CFR 60, Subpart TT, which is incorporated by reference in 326 IAC 12-1-1. A copy of the rule is attached.

- (a) **Either the recuperative thermal oxidizer, rated at 18.2 million British thermal units per hour identified as EU4/CE-1 and/or the direct flame finish oxidizer, rated at 30.0 million British thermal units per hour, identified as EU8/CE-2 shall be used continuously, i.e., at all times that the facility is operated, and operated at the most recently demonstrated overall efficiency.**
- (b) **The Permittee shall not cause to be discharged from the facility into the atmosphere more than:**
 - (1) **0.28 kilogram VOC per liter (kg/l) of coating solids applied for each calendar month for each affected facility that does not use an emission control device, or**
 - (2) **0.14 kilogram VOC per liter (kg/l) of coating solids applied for each calendar month for each affected facility that continuously uses an emission control device operated at the most recently demonstrated overall efficiency; or**
 - (3) **Ten (10%) percent of the VOC applied for each calendar month (ninety (90%) percent emission reduction) for each affected facility that continuously uses an emission control device operated at the most recently demonstrated overall efficiency; or**
 - (4) **A value between 0.14 (or a ninety (90%) percent emission reduction) and 0.28 kilogram VOC per liter (kg/l) of coating solids applied for each calendar month for each affected facility that intermittently uses an emission control device operated at the most recently demonstrated overall efficiency.**

D.1.42 Particulate Matter (PM) [326 IAC 6-3-2(c)]

The PM from the coil coating line shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.53 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the coil coating line and any control devices.

D.1.64 Nonapplicable Requirements [326 IAC 2-7-15(a)(2)]

The requirements that are not applicable to this coil coating line in accordance with Section B - Permit Shield, of this permit and 326 IAC 2-7-15 have been determined to be as follows:

- ~~(a) This coil coating line is not subject to the requirements of the New Source Performance Standard 326 IAC 12, 40 CFR 60.460, Subpart TT, because the coil coating line was constructed in 1971, which was before the January 5, 1981 applicability date of the rule.~~

- (a)(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR 63) applicable to this coil coating operation. As of permit issuance, there is no NESHAP applicable for coil coating operations.
- (b)(c) This coil coating line is not subject to 326 IAC 8-6-2, since the source was constructed in 1971 which, was before the October 7, 1974 applicability date of the rule.
- (c)(d) This coil coating line is not subject to 326 IAC 8-7. Even though the source has potential emissions greater than ten (10) tons per year, since the coil coating line is subject to 326 IAC 8-2-4, it is therefore, not subject to the requirements of 326 IAC 8-7.

Compliance Determination Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.75 Testing Requirements [326 IAC 8-1-4] [326 IAC 2-7-6(1)] [326 IAC 2-1.1-11]

During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform an overall VOC reduction efficiency test of the coil coating line, consisting of the prime coater, identified as EU1 with its recuperative thermal oxidizer, identified as EU4/CE-1 and the finish coater, identified as EU5 with its **direct flame finish** ~~multiple-chamber regenerative thermal~~ oxidizer, identified as EU8/CE-2 according to 326 IAC 3-6 (Source Sampling Procedures) using the methods specified in the rule or using other methods as approved by the Commissioner to demonstrate compliance with 326 IAC 8-2-4 (**Surface coating emission limitations: coil coating operations**). This test shall be repeated at least once every two and one-half (2.5) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

D.1.8 Testing Requirements [326 IAC 2-7-6(1)] [326 IAC 2-1.1-11] [326 IAC 12, 40 CFR 60.463, NSPS Subpart TT]

To determine compliance with Condition D.1.3, the Permittee shall complete and/or maintain the following requirements:

- (a) The Permittee shall conduct an initial performance test as required under 40 CFR 60.8(a) and thereafter a performance test for each calendar month for each affected facility according to the procedures in this section.
- (b) 40 CFR 60.8(d) and (f) do not apply to the performance test.
- (c) The Permittee shall use the following procedures for determining monthly volume-weighted average emissions of VOC's in kg/l of coating solids applied.
 - (1) Determine the overall reduction efficiency (R) for the capture system and control devices, using procedures specified in 40 CFR 60.463(c)(2)(i).
 - (2) Calculate the volume-weighted average of the total mass of VOC's per unit volume of coating applied (G) during each calendar month for each affected facility using equations in 40 CFR 60.463(c)(1)(i)(A), (B), and (C).
 - (3) Calculate the volume-weight average VOC emissions to the atmosphere (N) for each calendar month by the following equation:

$$N = G \cdot (1 - R)$$

- (4) **If the volume-weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to 0.14 kg/l of coating solids applied, the affected facility is in compliance. Each monthly calculation is a performance test.**

D.1.96 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.1.1 and D.1.3 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.107 Monitoring (326 IAC 8-2-4)

- (a) The recuperative thermal oxidizer, identified as EU4/CE-1 and the **direct flame finish oxidizer** ~~multiple chamber regenerative oxidizer~~, identified as EU8/CE-2 for VOC control shall be in operation at all times when necessary to comply with the emission limitation specified in Condition D.1.1.
- (b) When operating, both the recuperative thermal oxidizer, identified as EU4/CE-1 and the **direct flame finish oxidizer** ~~multiple chamber regenerative oxidizer~~, identified as EU8/CE-2 shall maintain a minimum operating temperature of 1,150EF **for the recuperative thermal oxidizer and 1,200EF for the direct flame finish oxidizer** or a minimum temperature, fan amperage and duct velocity as determined by the compliance tests required in Conditions D.1.75 and D.1.8. ~~These~~ **This** minimum operating temperatures ~~are is~~ required in order to maintain a minimum destruction efficiency of 86.02% and a minimum capture efficiency of 86.02%.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.
- (d) The owner or operator shall install, calibrate, operate and maintain a device that continuously records the combustion temperature of any effluent gases incinerated to achieve compliance with 0.31 kilograms per liter of coating excluding water (2.6 pounds per gallon).
- (1) This device shall have an accuracy of $\pm 2.5^{\circ}\text{C}$ or ± 0.75 percent of the temperature being measured expressed in degrees Celsius, which is greater.

D.1.11 Monitoring Requirements [326 IAC 12, 40 CFR 60.464]

The Permittee shall:

Install, calibrate, operate, and maintain a device that continuously records the combustion temperature of any effluent gases incinerated to achieve compliance with Condition D.1.3. This device shall have an accuracy of ± 2.5 degrees Celsius or ± 0.75 percent of the temperature being measured expressed in degrees Celsius, whichever is greater.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.128 Record Keeping Requirements [326 IAC 8-1-2] [326 IAC 12-1-1] [40 CFR 60, Subpart TT]

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1.

- (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
- (2) A log of the dates of use;
- (3) The volume weighted VOC content of the coatings used for each day that any coating with VOC content greater than 2.6 pounds per gallon is used, by:

$$\frac{\text{lb VOC}}{\text{gallon less water}} = \frac{3 \text{ coatings } [Dc * O * Q / [1-W * Dc / Dw]]}{3C}$$

Dc = density of coating, lb/gal Dw = density of water, lb/gal
O = weight percent organics, % Q = quantity of coating, gal/unit
W = percent volume of water, % C = total of coatings used, gal/unit

- (4) The cleanup solvent usage for each month;
 - (5) The total VOC usage for each month; and
 - (6) The weight of VOCs emitted for each compliance period.
- (b) To document compliance with Conditions D.1.1 and D.1.107(a), the Permittee shall record the dates and times, on an hourly basis, of all periods of startup and shutdown of the recuperative thermal oxidizer, identified as EU4/CE-1 and the **direct flame finish oxidizer** ~~multiple chamber regenerative oxidizer~~, identified as EU8/CE-2.
- (c) To document compliance with Conditions D.1.1 and D.1.107(a), the Permittee shall record the dates and times, on an hourly basis, of all periods of changeout of coatings when the recuperative thermal oxidizer, identified as EU4/CE-1 and the **direct flame finish oxidizer** ~~multiple chamber regenerative oxidizer~~, identified as EU8/CE-2 are not being used.
- (d) To document compliance with Conditions D.1.1 and D.1.107(eb), the Permittee shall also record all periods (during actual coating operations) in excess of three (3) hours during which the average temperature in EU4/CE-1 or EU8/CE-2 (the oxidizers used to control emissions) remains more than 28EC (50EF) below the temperature at which compliance with 0.31 kilograms per liter of coating excluding water (2.6 pounds per gallon) was demonstrated during the most recent measurement of oxidizer efficiency required by D.1.75. The records shall identify each such occurrence and its duration.

- (e) To document compliance with Condition D.1.3 and Condition D.1.8, the Permittee shall maintain at the source, for a period of at least two years, records of all data and calculations used to determine monthly VOC emissions from each affected facility and to determine the monthly emission limit, where applicable. The Permittee shall maintain at the source daily records of the recuperative thermal oxidizer and the direct flame finish oxidizer combustion temperatures.
- (f) Record all periods (during actual coating operations) in excess of 3 hours during which the average temperature in the recuperative thermal oxidizer, identified as EU4/CE-1 and the direct flame finish oxidizer, identified as EU8/CE-2 used to control emissions from an effected facility remains more than 28 degrees Celsius (50 degrees Fahrenheit) below the temperature at which compliance with 60.462(a)(2) or (3) was demonstrated during the most recent measurement of thermal oxidizer efficiency required by 40 CFR 60.8. The records required by 40 CFR 60.7 shall identify each such occurrence and its duration.
- (ge) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.13 Reporting [326 IAC 12, 40 CFR 60.465]

- (a) The Permittee shall include the following data in the initial compliance report required by 40 CFR 60.8:
 - (1) The overall VOC destruction rate; and
 - (2) The combustion temperature of the recuperative thermal oxidizer and the direct flame finish oxidizerused to attain compliance with Condition D.1.3.
- (b) Following the initial performance test, the Permittee shall identify, record, and submit a written report to IDEM, OAM every calendar quarter of each instance in which the volume-weighted average of the local mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified under Condition D.1.3. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to IDEM, OAM semiannually.
- (c) The Permittee shall also submit reports at the frequency specified in 40 CFR 60.7(c) when the recuperative thermal oxidizer and the direct flame finish oxidizer temperatures drop as defined by Condition D.1.11(b). If no such periods occur, the Permittee shall state that in the report.

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (1) ~~One (1) 10.99 mmBtu/hr natural gas process boiler, identified as EU9, constructed in 1971, exhausting to one (1) stack, identified as S-5. One (1) natural gas-fired process boiler, known as EU9, rated at 25.1 million British thermal units per hour, exhausting to Stack S-5.~~

INSIGNIFICANT ACTIVITIES

- (2) ~~One (1) 9.7 mmBtu/hr waste heat boiler.~~

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Nitrogen Oxides (NO_x) [326 IAC 2-3]

The total input of natural gas to the process boiler, identified as EU9, shall be limited to 205.5 million cubic feet per twelve (12) consecutive month period. This fuel limit combined with the unlimited potential to emit from the direct flame finish oxidizer and infrared oven (deemed an insignificant activity with no rules) is equivalent to less than twenty-five (25.0) tons per twelve (12) consecutive month period of NO_x.

D.2.24 Particulate Matter (PM)

Pursuant to 326 IAC 6-2-3 (Particulate Matter Emission Limitations for Sources of Indirect Heating, the PM emissions from the 10.99 mmBtu per hour process boiler and the 9.7 mmBtu/hr per hour waste heat boiler shall be limited to 0.5358 pounds per mmBtu heat input.

- (a) ~~This limitation is based on the following equation:~~

$$Pt = \frac{0.87}{Q^{0.16}}$$

~~Where:~~

~~Pt = Pounds of particulate matter emitted per million Btu per hour (lb/mmBtu/hr) heat input.~~

~~Q = Total source maximum operating capacity rating in million Btu per hour (mmBtu/hr) heat input. The maximum operating capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's operation permit application, except when some lower capacity is contained in the facility's operation permit, in which case, the capacity specified in the operation permit shall be used.~~

- (b) ~~The emission limitations shall be calculated using the equation in (a) where: Q shall reflect the total source capacity on June 8, 1972. The resulting Pt is the emission limitation for each facility existing on that date and will not be affected by the addition of any subsequent facility.~~

Pursuant to 326 IAC 6-2-4 (Emission limitations for facilities specified in 326 IAC 6-2-1(c)), the PM emissions from the 25.1 million British thermal units per hour process boiler shall be limited to 0.376 pounds per million British thermal units heat input as calculated by the following equation:

$$Pt = \frac{0.87}{Q^{0.26}}$$

Where:

Pt = Pounds of particulate matter emitted per million British thermal units.

Q = Total source maximum operating capacity rating in million British thermal units heat input. The maximum operating capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's operation permit application, except when some lower capacity is contained in the facility's operation permit, in which case, the capacity specified in the operation permit shall be used.

D.2.2 Nonapplicable Requirements [326 IAC 2-7-15(a)(2)]

The requirements that are not applicable to this boiler in accordance with Section B - Permit Shield, of this permit and 326 IAC 2-7-15 have been determined to be as follows:

- (a) This natural gas fired process boiler is not subject to the requirements of the New Source Performance Standard 326 IAC 12, 40 CFR 60.40c, Subpart Dc, because the boiler was constructed in 1971, which was before the January 5, 1981 applicability date of the rule.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR 63) applicable to this boiler. As of permit issuance, there is no NESHAP applicable for boilers.

D.2.3 Non-applicable Requirements [326 IAC 2-7-15(a)(2)]

The requirement that is not applicable to this process boiler in accordance with Section B - Permit Shield, of this permit and 326 IAC 2-7-15 has been determined to be as follows:

There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR 63) applicable to the natural gas-fired process boiler, known as EU9. As of permit issuance, there is no NESHAP applicable for natural gas combustion facilities.

D.2.4 Testing Requirements [326 IAC 2-7-6(1)] [326 IAC 2-1.1-11]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.2.24 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.6 Record Keeping Requirements [40CFR 60.40c, NSPS Subpart Dc]

- (a) To document compliance with Condition D.2.1 and NSPS Subpart Dc, the Permittee shall maintain records in accordance with (1) through (3) below.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Type of fuel combusted in the process boiler, and
 - (3) Actual natural gas consumption in the process boiler.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.7 Reporting Requirements

A quarterly summary to document compliance with Condition D.2.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. These reports shall include the amount of natural gas consumption each month. All records and reports shall use calendar months.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

PART 70 OPERATING PERMIT
QUARTERLY ~~SEMI-ANNUAL~~ COMPLIANCE MONITORING REPORT

Source Name: Precoat Metals division Sequa Coatings Corporation
Source Address: U.S. Highway 12 and Route 249, Portage, Indiana 46368
Mailing Address: 1310 Papin Street, Third Floor, St. Louis, Missouri 63103
Part 70 Permit No.: T127-6025-00005

Months: _____ to _____ Year: _____

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted **quarterly** ~~semi-annually~~. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/ Deviation Occurrence Report. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.

Compliance Monitoring Requirement (e.g. Permit Condition D.1.3)	Number of Deviations	Date of each Deviation

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Precoat Metals division Sequa Coatings Corporation
Source Address: U.S. 12 and Indiana 249, Portage, Indiana 46368
Mailing Address: U.S. 12 and Indiana 249, Portage, Indiana 46368
Modification No.: SSM 127-11786-00005
Facility: Process Boiler (EU9)
Parameter: Natural gas consumption
Limit: Less than 205.5 million cubic feet per twelve (12) consecutive month period
Equivalent to less than twenty-five (25.0) tons of NO_x per twelve (12) consecutive month period, including the direct flame finish oxidizer and the infrared oven at full potential-to-emit.

YEAR: _____

Month	Natural Gas Usage (MMCF)	Natural Gas Usage (MMCF)	Natural Gas Usage (MMCF)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Frank P. Castelli, c/o OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments
FPC/MES

cc: File - Porter County
U.S. EPA, Region V
Porter County Health Department
Northwest Regional Office
Air Compliance Section Inspector - Dave Sampias
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

PART 70 OPERATING PERMIT OFFICE OF AIR MANAGEMENT

Precoat Metals division Sequa Coatings Corporation U.S. Highway 12 and Route 249 Portage, Indiana 46368

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T127-6025-00005	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Management	Issuance Date: February 10, 1999
First Significant Source Modification: SSM 127-11613-00005	Pages Affected: 4, 5, 26, 28, 29, 29a, 30, 31, 31a, 31b, 32, 33, 39 and 39a
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:
First Significant Permit Modification: SSM 127-11786-00005	Pages Affected: 4, 5, 26, 28, 29, 29a, 30, 31, 31a, 32, 33, 39 and 39a
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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Quarterly Report Form

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a metal coil coating operation.

Responsible Official: David A. Leligdon
Source Address: U.S. Highway 12 and Route 249, Portage, Indiana 46368
Mailing Address: 1310 Papin Street, Third Floor, St. Louis, Missouri 63103
SIC Code: 3479
County Location: Porter
County Status: Nonattainment for Ozone, NOx and TSP
Source Status: Part 70 Permit Program
Major Source, under PSD and Emission Offset Rules;
Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary metal coil coating source consists of the following emission units and pollution control devices:

- (1) One (1) coil coating line consisting of the following:
 - (a) A Prime Coating Section (PCS), constructed in 1971, consisting of one (1) prime coater, identified as EU1, with a maximum capacity of 883 lb VOC/hr, using one (1) 18.2 million British thermal units/hr recuperative thermal oxidizer, identified as EU4/CE-1, as control with a maximum capacity of 2.0 gal VOC/min, one (1) 33.6 million British thermal units/hr prime curing oven, identified as EU2, all exhausting to one (1) stack, identified as S-1, and one (1) prime water cooler, identified as EU3, exhausting to one (1) stack, identified as S-2.
 - (b) A Finish Coating Section (FCS), constructed in 1971, consisting of one (1) finish coater, identified as EU5, with a maximum capacity of 1142 lb VOC/hr, using one (1) direct flame finish oxidizer, rated at 30.0 million British thermal units per hour, identified as EU8/CE-2, as control with a maximum capacity of 3.75 gal VOC/min with heat exhausting to a waste heat boiler exhausting to stack S-14, one (1) 37.6 mmBtu/hr finish curing oven, identified as EU6, all exhausting to one (1) stack, identified as S-3, and one (1) finish water cooler, identified as EU7, exhausting to one (1) stack, identified as S-4.
- (2) One (1) natural gas-fired process boiler, identified as EU9, rated at 25.1 million British thermal units per hour, exhausting to Stack S-5.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary metal coil coating source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (1) Natural gas fired combustion sources with heat input equal to or less than ten (10) million Btu per hour.
- (2) One (1) lime slurry mix tank, capable of mixing hydrated lime at a rate of 500 pounds per hour, using a baghouse to control the PM emissions.
- (3) One (1) chemical pretreatment section including two (2) alkaline cleaners, two (2) scrubber brushes, two (2) hot water rinses, two (2) chemical treatments and one (1) final chemical rinse. An exhaust hood conveys water vapor from the cleaners, scrubber brushes and hot water rinse tanks.
- (4) One (1) chemical coater for applying non-organic coatings and one (1) gas-fired infrared oven for drying the applied non-organic coatings, identified as EU11, exhausting to Stack S-13.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary metal coil coating source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

- (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.21 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported.
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period.
- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports.
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (1) One (1) coil coating line consisting of the following:
- (a) A Prime Coating Section (PCS), constructed in 1971, consisting of one (1) prime coater, identified as EU1, with a maximum capacity of 883 lb VOC/hr, using one (1) 18.2 mmBtu/hr recuperative thermal oxidizer, identified as EU4/CE-1, as control with a maximum capacity of 2.0 gal VOC/min, one (1) 33.6 mmBtu/hr prime curing oven, identified as EU2, all exhausting to one (1) stack, identified as S-1, and one (1) prime water cooler, identified as EU3, exhausting to one (1) stack, identified as S-2.
 - (b) A Finish Coating Section (FCS), constructed in 1971, consisting of one (1) finish coater, identified as EU5, with a maximum capacity of 1142 lb VOC/hr, using one (1) direct flame finish oxidizer, rated at 30.0 million British thermal units per hour, identified as EU8/CE-2, as control with a maximum capacity of 3.75 gal VOC/min with heat exhausting to a waste heat boiler exhausting to stack S-14, one (1) 37.6 mmBtu/hr finish curing oven, identified as EU6, all exhausting to one (1) stack, identified as S-3, and one (1) finish water cooler, identified as EU7, exhausting to one (1) stack, identified as S-4.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Coil Coating Operations [326 IAC 8-2-4] [326 IAC 8-1-2]

- (a) Pursuant to OP No. 3420-0005-0262, issued on October 31, 1990 and 326 IAC 8-2-4 (Coil Coating Operations), the VOC discharged into the atmosphere from the coil coating line shall not exceed of 0.31 kilograms per liter of coating (2.6 pounds per gallon) excluding water.
- (b) When operating either the recuperative thermal oxidizer, identified as EU4/CE-1 and/or the direct flame finish oxidizer, identified as EU8/CE-2 for VOC control as required by 326 IAC 8-1-2 (a)(2) to achieve the above limit in (a) for rule 326 IAC 8-2-4, a minimum overall control efficiency of 74.00% must be maintained. Based upon 326 IAC 8-1-2(c) and the overall control efficiency of 74.00%, the daily weighted average VOC content of all the coatings shall not exceed 15.46 pounds of VOC per gallon of coating solids as applied.

D.1.2 General Provisions Relating to NSPS [326 IAC 12-1-1] [40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 60, Subpart TT.

D.1.3 Metal Coil Surface Coating NSPS [326 IAC 12-1-1] [40 CFR 60, Subpart TT]

This coil coating line is subject to 40 CFR 60, Subpart TT, which is incorporated by reference in 326 IAC 12-1-1. A copy of the rule is attached.

- (a) Either the recuperative thermal oxidizer, identified as EU4/CE-1 and/or the direct flame finish oxidizer, rated at 30.0 million British thermal units per hour, identified as EU8/CE-2 shall be used continuously, i.e., at all times that the facility is operated, and operated at the most recently demonstrated overall efficiency.

- (b) The Permittee shall not cause to be discharged from the facility into the atmosphere more than:
- (1) 0.28 kilogram VOC per liter (kg/l) of coating solids applied for each calendar month for each affected facility that does not use an emission control device, or
 - (2) 0.14 kilogram VOC per liter (kg/l) of coating solids applied for each calendar month for each affected facility that continuously uses an emission control device operated at the most recently demonstrated overall efficiency; or
 - (3) Ten (10%) percent of the VOC applied for each calendar month (ninety (90%) percent emission reduction) for each affected facility that continuously uses an emission control device operated at the most recently demonstrated overall efficiency; or
 - (4) A value between 0.14 (or a ninety (90%) percent emission reduction) and 0.28 kilogram VOC per liter (kg/l) of coating solids applied for each calendar month for each affected facility that intermittently uses an emission control device operated at the most recently demonstrated overall efficiency.

D.1.4 Particulate Matter (PM) [326 IAC 6-3-2(c)]

The PM from the coil coating line shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the coil coating line and any control devices.

D.1.6 Nonapplicable Requirements [326 IAC 2-7-15(a)(2)]

The requirements that are not applicable to this coil coating line in accordance with Section B - Permit Shield, of this permit and 326 IAC 2-7-15 have been determined to be as follows:

- (a) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR 63) applicable to this coil coating operation. As of permit issuance, there is no NESHAP applicable for coil coating operations.
- (b) This coil coating line is not subject to 326 IAC 8-6-2, since the source was constructed in 1971 which, was before the October 7, 1974 applicability date of the rule.
- (c) This coil coating line is not subject to 326 IAC 8-7. Even though the source has potential emissions greater than ten (10) tons per year, since the coil coating line is subject to 326 IAC 8-2-4, it is therefore, not subject to the requirements of 326 IAC 8-7.

Compliance Determination Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.7 Testing Requirements [326 IAC 8-1-4] [326 IAC 2-7-6(1)] [326 IAC 2-1.1-11]

During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform an overall VOC reduction efficiency test of the coil coating line, consisting of the prime coater, identified as EU1 with its recuperative thermal oxidizer, identified as EU4/CE-1 and the

finish coater, identified as EU5 with its direct flame finish oxidizer, identified as EU8/CE-2 according to 326 IAC 3-6 (Source Sampling Procedures) using the methods specified in the rule or using other methods as approved by the Commissioner to demonstrate compliance with 326 IAC 8-2-4 (Surface coating emission limitations: coil coating operations). This test shall be repeated at least once every two and one-half (2.5) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

D.1.8 Testing Requirements [326 IAC 2-7-6(1)] [326 IAC 2-1.1-11] [326 IAC 12, 40 CFR 60.463, NSPS Subpart TT]

To determine compliance with Condition D.1.3, the Permittee shall complete and/or maintain the following requirements:

- (a) The Permittee shall conduct an initial performance test as required under 40 CFR 60.8(a) and thereafter a performance test for each calendar month for each affected facility according to the procedures in this section.
- (b) 40 CFR 60.8(d) and (f) do not apply to the performance test.
- (c) The Permittee shall use the following procedures for determining monthly volume-weighted average emissions of VOC's in kg/l of coating solids applied.
 - (1) Determine the overall reduction efficiency (R) for the capture system and control devices, using procedures specified in 40 CFR 60.463(c)(2)(i).
 - (2) Calculate the volume-weighted average of the total mass of VOC's per unit volume of coating applied (G) during each calendar month for each affected facility using equations in 40 CFR 60.463(c)(1)(i)(A), (B), and (C).
 - (3) Calculate the volume-weight average VOC emissions to the atmosphere (N) for each calendar month by the following equation:
$$N = G \cdot (1 - R)$$
 - (4) If the volume-weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to 0.14 kg/l of coating solids applied, the affected facility is in compliance. Each monthly calculation is a performance test.

D.1.9 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.1.1 and D.1.3 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.10 Monitoring (326 IAC 8-2-4)

- (a) The recuperative thermal oxidizer, identified as EU4/CE-1 and the direct flame finish oxidizer, identified as EU8/CE-2 for VOC control shall be in operation at all times when necessary to comply with the emission limitation specified in Condition D.1.1.
- (b) When operating, both the recuperative thermal oxidizer, identified as EU4/CE-1 and the direct flame finish oxidizer, identified as EU8/CE-2 shall maintain a minimum operating temperature of 1,150EF for the recuperative thermal oxidizer and 1,200EF for the direct flame finish oxidizer or a minimum temperature, fan amperage and duct velocity as determined by the compliance tests required in Conditions D.1.7 and D.1.8. These minimum operating temperatures are required in order to maintain a minimum destruction efficiency of 86.02% and a minimum capture efficiency of 86.02%.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

- (d) The owner or operator shall install, calibrate, operate and maintain a device that continuously records the combustion temperature of any effluent gases incinerated to achieve compliance with 0.31 kilograms per liter of coating excluding water (2.6 pounds per gallon).
- (1) This device shall have an accuracy of $\pm 2.5^\circ\text{C}$ or ± 0.75 percent of the temperature being measured expressed in degrees Celsius, which is greater.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.11 Monitoring Requirements [326 IAC 12, 40 CFR 60.464]

The Permittee shall:

Install, calibrate, operate, and maintain a device that continuously records the combustion temperature of any effluent gases incinerated to achieve compliance with Condition D.1.3. This device shall have an accuracy of ± 2.5 degrees Celsius or ± 0.75 percent of the temperature being measured expressed in degrees Celsius, whichever is greater.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.12 Record Keeping Requirements [326 IAC 8-1-2] [326 IAC 12-1-1] [40 CFR 60, Subpart TT]

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1.
- (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
- (2) A log of the dates of use;
- (3) The volume weighted VOC content of the coatings used for each day that any coating with VOC content greater than 2.6 pounds per gallon is used, by:
- $$\frac{\text{lb VOC}}{\text{gallon less water}} = \frac{3 \text{ coatings } [D_c * O * Q / (1 - W * D_c / D_w)]}{3C}$$
- D_c = density of coating, lb/gal D_w = density of water, lb/gal
 O = weight percent organics, % Q = quantity of coating, gal/unit
 W = percent volume of water, % C = total of coatings used, gal/unit
- (4) The cleanup solvent usage for each month;
- (5) The total VOC usage for each month; and
- (6) The weight of VOCs emitted for each compliance period.
- (b) To document compliance with Conditions D.1.1 and D.1.10(a), the Permittee shall record the dates and times, on an hourly basis, of all periods of startup and shutdown of the recuperative thermal oxidizer, identified as EU4/CE-1 and the direct flame finish oxidizer, identified as EU8/CE-2.

- (c) To document compliance with Conditions D.1.1 and D.1.10(a), the Permittee shall record the dates and times, on an hourly basis, of all periods of changeout of coatings when the recuperative thermal oxidizer, identified as EU4/CE-1 and the direct flame finish oxidizer, identified as EU8/CE-2 are not being used.
- (d) To document compliance with Conditions D.1.1 and D.1.10(b), the Permittee shall also record all periods (during actual coating operations) in excess of three (3) hours during which the average temperature in EU4/CE-1 or EU8/CE-2 (the oxidizers used to control emissions) remains more than 28EC (50EF) below the temperature at which compliance with 0.31 kilograms per liter of coating excluding water (2.6 pounds per gallon) was demonstrated during the most recent measurement of oxidizer efficiency required by D.1.7. The records shall identify each such occurrence and its duration.
- (e) To document compliance with Condition D.1.3 and Condition D.1.8, the Permittee shall maintain at the source, for a period of at least two years, records of all data and calculations used to determine monthly VOC emissions from each affected facility and to determine the monthly emission limit, where applicable. The Permittee shall maintain at the source daily records of the recuperative thermal oxidizer and the direct flame finish oxidizer combustion temperatures.
- (f) Record all periods (during actual coating operations) in excess of 3 hours during which the average temperature in the recuperative thermal oxidizer, identified as EU4/CE-1 and the direct flame finish oxidizer, identified as EU8/CE-2 used to control emissions from an effected facility remains more than 28 degrees Celsius (50 degrees Fahrenheit) below the temperature at which compliance with 60.462(a)(2) or (3) was demonstrated during the most recent measurement of thermal oxidizer efficiency required by 40 CFR 60.8. The records required by 40 CFR 60.7 shall identify each such occurrence and its duration.
- (g) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.13 Reporting Requirements [326 IAC 12, 40 CFR 60.465]

- (a) The Permittee shall include the following data in the initial compliance report required by 40 CFR 60.8:
 - (1) The overall VOC destruction rate; and
 - (2) The combustion temperature of the recuperative thermal oxidizer and the direct flame finish oxidizerused to attain compliance with Condition D.1.3.
- (b) Following the initial performance test, the Permittee shall identify, record, and submit a written report to IDEM, OAM every calendar quarter of each instance in which the volume- weighted average of the local mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified under Condition D.1.3. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to IDEM, OAM semiannually.
- (c) The Permittee shall also submit reports at the frequency specified in 40 CFR 60.7(c) when the recuperative thermal oxidizer and the direct flame finish oxidizer temperatures drop as defined by Condition D.1.11(b). If no such periods occur, the Permittee shall state that in the report.

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

One (1) natural gas-fired process boiler, identified as EU9, rated at 25.1 million British thermal units per hour, exhausting to Stack S-5.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Nitrogen Oxides (NO_x) [326 IAC 2-3]

The total input of natural gas to the process boiler, identified as EU9, shall be limited to less than 205.5 million cubic feet per twelve (12) consecutive month period. This fuel limit combined with the unlimited potential to emit from the direct flame finish oxidizer and infrared oven (deemed an insignificant activity with no rules) is equivalent to less than twenty-five (25.0) tons per twelve (12) consecutive month period of NO_x.

D.2.2 Particulate Matter (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Emission limitations for facilities specified in 326 IAC 6-2-1(c)), the PM emissions from the 25.1 million British thermal units per hour process boiler shall be limited to 0.376 pounds per million British thermal units heat input as calculated by the following equation:

$$Pt = \frac{0.87}{Q^{0.26}}$$

Where:

Pt = Pounds of particulate matter emitted per million British thermal units.

Q = Total source maximum operating capacity rating in million British thermal units heat input. The maximum operating capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's operation permit application, except when some lower capacity is contained in the facility's operation permit, in which case, the capacity specified in the operation permit shall be used.

D.2.3 Non-applicable Requirements [326 IAC 2-7-15(a)(2)]

The requirement that is not applicable to this process boiler in accordance with Section B - Permit Shield, of this permit and 326 IAC 2-7-15 has been determined to be as follows:

There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR 63) applicable to the natural gas-fired process boiler, known as EU9. As of permit issuance, there is no NESHAP applicable for natural gas combustion facilities.

Compliance Determination Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.4 Testing Requirements [326 IAC 2-7-6(1)] [326 IAC 2-1.1-11]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition

D.2.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.2.5 Natural Gas Fired Boiler Certification

An annual certification shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the Natural Gas Fired Boiler Certification form located at the end of this permit, or its equivalent, no later than April 15 of each year.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.6 Record Keeping Requirements [40CFR 60.40c, NSPS Subpart Dc]

(a) To document compliance with Condition D.2.1 and NSPS Subpart Dc, the Permittee shall maintain records in accordance with (1) through (3) below.

- (1) Calendar dates covered in the compliance determination period;
- (2) Type of fuel combusted in the process boiler, and
- (3) Actual natural gas consumption in the process boiler.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.7 Reporting Requirements

A quarterly summary to document compliance with Condition D.2.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. These reports shall include the amount of natural gas consumption each month. All records and reports shall use calendar months.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT
QUARTERLY COMPLIANCE MONITORING REPORT**

Source Name: Precoat Metals division Sequa Coatings Corporation
Source Address: U.S. Highway 12 and Route 249, Portage, Indiana 46368
Mailing Address: 1310 Papin Street, Third Floor, St. Louis, Missouri 63103
Part 70 Permit No.: T127-6025-00005

Months: _____ **to** _____ **Year:** _____

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted quarterly. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.

Compliance Monitoring Requirement (e.g. Permit Condition D.1.3)	Number of Deviations	Date of each Deviation

Form Completed By: _____
Title/Position: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Precoat Metals division Sequa Coatings Corporation
Source Address: U.S. 12 and Indiana 249, Portage, Indiana 46368
Mailing Address: U.S. 12 and Indiana 249, Portage, Indiana 46368
Modification No.: SSM 127-11786-00005
Facility: Process Boiler (EU9)
Parameter: Natural gas consumption
Limit: 205.5 million cubic feet per twelve (12) consecutive month period
Equivalent to less than twenty-five (25.0) tons of NO_x per twelve (12) consecutive month period, including the direct flame finish oxidizer and the infrared oven at full potential-to-emit.

YEAR: _____

Month	Natural Gas Usage (MMCF)	Natural Gas Usage (MMCF)	Natural Gas Usage (MMCF)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Significant Permit Modification to a Part 70 Operating Permit

Source Background and Description

Source Name:	Precoat Metals division Sequa Coatings Corporation
Source Location:	U.S. 12 and Indiana 249, Portage, Indiana 46368
County:	Porter
SIC Code:	3479
Operation Permit No.:	T 127-6025-00005
Operation Permit Issuance Date:	February 10, 1999
Significant Permit Modification No.:	127-11786-00005
Permit Reviewer:	Frank P. Castelli

The Office of Air Management (OAM) has reviewed a modification application from Precoat Metals division Sequa Coatings Corporation relating to the operation of the following emission units and pollution control devices:

- (a) One (1) chemical coater for applying non-organic coatings and one (1) gas-fired infrared oven for drying the applied non-organic coatings, known as EU11, exhausting to Stack S-13 (deemed an insignificant activity).
- (b) One (1) natural gas-fired process boiler, known as EU9, rated at 25.1 million British thermal units per hour, exhausting to Stack S-5.
- (c) One (1) a direct flame finish oxidizer, known as EU8/CE-#2, rated at 30.0 million British thermal units per hour, exhausting to Stack S-3, with heat exhausting to a waste heat boiler, exhausting to Stack S-14.

History

On November 29, 1999 Precoat Metals division Sequa Coatings Corporation submitted an application to the OAM requesting to add one (1) chemical coater and one (1) gas-fired infrared oven for applying and drying non-organic coatings. The modification also consists of replacing the multi-chamber regenerative thermal oxidizer rated at 4.25 million British thermal units per hour and waste heat boiler with a direct-flame finish oxidizer and a new waste heat boiler. The modification will also replace an existing process boiler with a larger process boiler.

In addition, the source requested an emission cap pursuant to 326 IAC 2-1.1-12(c)(1)(2) & (3). The current capacity of the existing line will not be increased by this modification, however production and therefore actual VOC emissions will increase. The emissions cap request will be addressed separately from this proposed modification.

Permit Modification

Pursuant to 326 IAC 2-7-12(d), this proposed significant permit modification to the Part 70 Operating Permit, T 127-6025-00005, issued on February 10, 1999, is required to incorporate the first significant source modification, SSM 127-11613-00005, into the Part 70 Operating Permit. This

proposed permit modification is necessary since the significant source modification is subject to the requirements of 40 CFR Part 60, Subpart TT (Standards of Performance for Metal Coil Surface Coating). This permit modification will allow for the operation of the facilities covered in the significant source modification, SSM 127-11613-00005.

Conclusion

The operation of the chemical coater, gas-fired infrared oven, natural gas-fired process boiler and the direct flame finish oxidizer shall be subject to the conditions of the attached proposed significant permit modification SPM 127-11786-00005.

Indiana Department of Environmental Management
Office of Air Management

Addendum to the
Technical Support Document for a Part 70 Operating Permit

Source Name: Precoat Metals division Sequa Coatings Corporation
Source Location: U.S. 12 and Indiana 249, Portage, Indiana 46368
County: Porter
SIC Code: 3479
Operation Permit No.: SPM 127-11786-00005
Permit Reviewer: Frank P. Castelli

On February 14, 2000, the Office of Air Management (OAM) had a notice published in the Chesterton Tribune, Chesterton, Indiana, stating that Precoat Metals division Sequa Coatings Corporation had applied for a Significant Permit Modification to a Part 70 Operating Permit to operate a direct flame finish oxidizer, a natural gas-fired process boiler and a chemical coater with a gas-fired infrared drying oven. The notice also stated that OAM proposed to issue a Significant Permit Modification and provided information on how the public could review the proposed Significant Permit Modification and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this Significant Permit Modification to a Part 70 Operating Permit should be issued as proposed.

On March 14, 2000, Robert L. Mead, Director Environmental Affairs of Precoat Metals, submitted comments on the proposed Part 70 Operating Permit. The comments are as follows: The permit language, if changed, has deleted language as ~~strikeouts~~ and new language **bolded**.

TSD

Comment 1:

On the second page of the cover letter submitted with the November 29, 1999, application to modify the existing Part 70 source, the plant also requested to be able to temporarily connect the prime oven exhaust to the regenerative thermal oxidizer and connect the finish oven exhaust to the recuperative thermal oxidizer. This temporary change is necessary until the new finish oxidizer can be installed. The source will proceed with the switching out of such equipment unless IDEM explicitly states otherwise after reviewing these comments.

Response 1:

The temporary switching of the oxidizers does not affect any of the applicable conditions of the existing Part 70 Operating Permit. The increased efficiency of the temporary arrangement will reduce combustion emissions. Therefore, the temporary switching of control devices does not have the potential to increase any air regulated pollutant, and therefore pursuant to 326 IAC 2-1.1-1(1)(6) this switch can proceed without further approval by IDEM, OAM.

Comment 2

Page 4/19 – PTE of Modification After Issuance: The process boiler natural gas limitation is stated to be 203.4 million cubic feet per year. On page 5/19 item (b) the process boiler natural gas limitation is stated to be 205.5 million cubic feet per year. The source requests clarification as to

which limit applies.

Response 2:

The correct fuel usage limit of 205.5 million cubic feet of natural gas per year was shown in the spreadsheet on page 3 of 4 of Appendix A and was stated on page 5 of 19 (b) of the TSD. Condition D.2.1 had the correct fuel limit and no change to the permit modification is required. The limit shown on page 4 of 19 of the TSD of 203.4 should have been 205.5 million cubic feet of natural gas per year. Therefore, no change to the permit is necessary.

Comment 3:

Compliance Requirements: This section states that only the finish oxidizer is subject to NSPS requirements and must meet 40 CFR 60 Subpart TT. This statement is contradictory to other sections within the proposed permit changes. Do the proposed modifications not subject the entire coating line to 40 CFR 60 Subpart TT? Will the prime coating section have to meet only 326 IAC 8-2-4? Also, under item a, the minimum 90% refers to the overall VOC control efficiency and not just those captured by the control device. The source is requesting some clarification on the above items.

Response 3:

The entire coating line, because of this modification, is subject to the NSPS Subpart TT. The compliance requirements section of the TSD on page 7 of 19 stated that "These monitoring conditions are necessary because the direct flame finish oxidizer must operate properly to ensure compliance with NSPS Subpart TT, 326 IAC 8-2-4 and 326 IAC 2-7 (Part 70)." It should not be misconstrued that only the direct flame finish oxidizer is subject to the rule, just that it must operate properly to ensure compliance with Subpart TT. Condition D.1.3 clearly states that the coil coating line is subject to Subpart TT. The prime coating section as well as the finish coating section will have to comply with NSPS Subpart TT as well as 326 IAC 8-2-4.

On Page 7 of 19 of the TSD, the Compliance Monitoring Requirement to maintain a minimum operating temperature of 1,200 degrees Fahrenheit or a temperature, fan amperage and duct velocity determined in the compliance tests to maintain a minimum ninety (90%) percent destruction of the volatile organic compounds (VOC) captured is the minimum destruction efficiency necessary to be able to show compliance with the NSPS Subpart TT overall reduction of ninety (90%) percent. For example, with a one hundred (100%) capture efficiency, the destruction efficient must be ninety (90%) to comply with the rule.

Therefore, there is no contradiction and no changes are necessary to the permit.

Comment 4:

D.1.3: There is a typographical error in this section. The term "40 CFR 63 Subpart TT" should be changed to "40 CFR 60 Subpart TT".

The source is requesting that, where coatings with a VOC content less than 0.28 kg VOC/liter solids are applied, that the oxidizer does not have to be operated, so long as the 40 CFR 60.463(a)(4) is complied with.

Response 4:

The typographical error has been corrected as follows:

D.1.3 Metal Coil Surface Coating NSPS [326 IAC 12-1-1] [40 CFR 60, Subpart TT]

This coil coating line is subject to 40 CFR ~~60 63~~, Subpart TT, which is incorporated by reference in 326 IAC 12-1-1. A copy of the rule is attached.

In order to incorporate the NSPS limits when a control device is not operating, or operating intermittently, Condition D.1.3, has been revised as shown below: The oxidizer does not have to be operated at all times so long as the requirements of 40 CFR 60.463(a)(4) are met that require a VOC content less than 0.28 kg VOC/liter solids and as long as adequate records are maintained to show that the VOC content of all materials applied have a VOC content less than 0.28 kg VOC/liter solids or a value in between 0.14 and 0.28 kg VOC/liter solids if the oxidizer is operated intermittently. Condition D.1.10(a) already specified that the oxidizer did not have to operate at all times and stated:

- (a) The recuperative thermal oxidizer, identified as EU4/CE-1 and the direct flame finish oxidizer, identified as EU8/CE-2 for VOC control shall be in operation at all times when necessary to comply with the emission limitation specified in Condition D.1.1.

Therefore, Condition D.1.3, has been revised as follows:

D.1.3 Metal Coil Surface Coating NSPS [326 IAC 12-1-1] [40 CFR 60, Subpart TT]

This coil coating line is subject to 40 CFR 60, Subpart TT, which is incorporated by reference in 326 IAC 12-1-1. A copy of the rule is attached.

- (a) Either the recuperative thermal oxidizer, **rated at 18.2 million British thermal units per hour**, identified as EU4/CE-1 and/or the direct flame finish oxidizer, rated at 30.0 million British thermal units per hour, identified as EU8/CE-2 shall be used continuously, i.e., at all times that the facility is operated, and operated at the most recently demonstrated overall efficiency.
- (b) The Permittee shall not cause to be discharged from the facility into the atmosphere more than:
 - (1) **0.28 kilogram VOC per liter (kg/l) of coating solids applied for each calendar month for each affected facility that does not use an emission control device, or**
 - (2+) **0.14 kilogram VOC per liter (kg/l) of coating solids applied for each calendar month for each affected facility that continuously uses an emission control device operated at the most recently demonstrated overall efficiency; or**
 - (32) **Ten (10%) percent of the VOC applied for each calendar month (ninety (90%) percent emission reduction) for each affected facility that continuously uses an emission control device operated at the most recently demonstrated overall efficiency; or**

- (4) A value between 0.14 (or a ninety (90%) percent emission reduction) and 0.28 kilogram VOC per liter (kg/l) of coating solids applied for each calendar month for each affected facility that intermittently uses an emission control device operated at the most recently demonstrated overall efficiency.**

Comment 5:

D.1.7 & D.1.8: Since the original Title V permit was issued on February 10, 1999, the 30-36 month test requirement would have been required between August 10, 2001 and February 10, 2002. Does the Significant permit modification extend the required testing by the 30-36 months after the current permit amendment is issued?

The testing required under D.1.8 (a) must be conducted with 60 days after reaching maximum production but not later than 180 days after initial startup. Since NSPS testing of the coil line will be first and, because the overall control efficiency is more stringent than 8-2-4, the source would not be able to operate the coil line at efficiencies equivalent to 8-2-4 and still meet NSPS limitations.

Also, the minimum oxidizer temperatures required to meet 8-2-4 will be different than those required to meet NSPS limitations. The minimum oxidizer temperatures necessary to meet 90% overall VOC control is roughly 1300 F for both the prime and finish oxidizer. The minimum oxidizer temperatures necessary to meet the 74% overall VOC control as contained in D.1.1 (a) is roughly 1150 F for both the prime and finish oxidizer.

Finally, the source is requesting the testing required under D.1.8 also satisfy the requirements of D.1.7. If only one performance test is conducted pursuant to NSPS, does failing to maintain minimum temperatures with NSPS also constitute a violation of 8-2-4.?

Response 5:

Condition D.1.7 of the Part 70 permit required testing within 30-36 months of the February 10, 1999 issuance date and the Significant Source Modification does not extend the required testing by an additional 30 - 36 months after the issuance of this source modification.

You are correct in the assumption that the source would not be able to operate the coil line at control efficiencies equivalent to those required by 326 IAC 8-2-4 and still meet NSPS limitations. The coil line must meet the more stringent NSPS requirements. The minimum oxidizer temperatures must be sufficient to comply with the VOC reduction requirements of NSPS Subpart TT.

Condition D.1.8 requires testing that can be used to show compliance with the testing required by Condition D.1.7. The NSPS testing required by Condition D.1.8 is more stringent than the testing required by Condition D.1.7 which is intended to verify compliance with 326 IAC 8-2-4.

Failing to maintain the minimum operating temperatures required by NSPS Subpart TT will not necessarily constitute a violation of 326 IAC 8-2-4. If testing indicates compliance with 326 IAC 8-2-4, but not with NSPS Subpart TT, then IDEM OAM would deem that there is a violation of only Subpart TT.

Comment 6:

The new boiler is subject to NSPS but the source is unaware of any NESHAP for the new boiler. The source requests that under the non-applicable requirements the above reference be made.

Response 6:

In keeping with the Part 70 Permit, a non-applicability condition like that in Section D.1, Condition D.1.6, has been added to Section D.2 as Condition D.2.3 as follows:

D.2.3 Non-applicable Requirements [326 IAC 2-7-15(a)(2)]

The requirement that is not applicable to this process boiler in accordance with Section B - Permit Shield, of this permit and 326 IAC 2-7-15 has been determined to be as follows:

There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR 63) applicable to this natural gas-fired process boiler, known as EU9 as of the permit issuance date. There is no NESHAP applicable for natural gas combustion facilities.

All subsequent conditions in Section D.2 have been re-numbered.

Comment 7:

How and when will the emission cap be addressed?

Response 7:

The emission cap is currently being processed as a Significant Permit Modification to the Part 70 Operating Permit by Stacey Pfeffer of IDEM, OAM.

Comment 8:

In the TSD for the Significant Source Modification, the stack summary, I.D. 3, needs to have the chemical coater removed. Stack S-3 is only for the direct flame oxidizer.

Response 8:

The stack summary table has been revised as suggested since the TSD does not get updated. No changes to the permit are required by this change.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
S-3	chemical coater /direct flame finish oxidizer	58	4.0	13,855	1,400
S-5	process boiler	45	4.0	8,760	375
S-13	infrared oven for drying non-organic coatings (insignificant activity)	48	5.0	6,150	200

Precoat Metals division Sequa Coatings Corporation
Portage, Indiana
Permit Reviewer: FPC/MES

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S-14	waste heat boiler	45	4.0	25,624	400
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Comment 9:

Condition D.1.12 (d): The source feels there is a typographical error in this section. The first sentence should read "To document compliance with Condition D.1.1 and D.1.10(c) (b)"...

Response 9:

The correct citation in Condition D.1.12(d) should be Condition D.1.10(b). This error was contained in the original Part 70 Operating Permit and has been corrected as follows:

D.1.12 Record Keeping Requirements [326 IAC 8-1-2] [326 IAC 12-1-1] [40 CFR 60, Subpart TT]

- (d) To document compliance with Conditions D.1.1 and D.1.10(e)(b) the Permittee shall also record all periods (during actual coating operations) in excess of three (3) hours during which the average temperature in EU4/CE-1 or EU8/CE-2 (the oxidizers used to control emissions) remains more than 28EC (50EF) below the temperature at which compliance with 0.31 kilograms per liter of coating excluding water (2.6 pounds per gallon) was demonstrated during the most recent measurement of oxidizer efficiency required by D.1.7. The records shall identify each such occurrence and its duration.

Upon further review, the OAM has decided to make the following changes to the Part 70 Operating Permit: The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded**):

1. Condition A.2(2), Section D.2(2), Condition A.3(4) and Condition D.2.1 have been revised to use the word "identified" rather than known" to be consistent with the wording that describes the existing equipment as follows:
 - (2) One (1) natural gas-fired process boiler, **identified** ~~known~~ as EU9, rated at 25.1 million British thermal units per hour, exhausting to Stack S-5.
 - (4) One (1) chemical coater for applying non-organic coatings and one (1) gas-fired infrared oven for drying the applied non-organic coatings, **identified** ~~known~~ as EU11, exhausting to Stack S-13.

D.2.1 Nitrogen Oxides (NO_x) [326 IAC 2-3]

The total input of natural gas to the process boiler, **identified** ~~known~~ as EU9, shall be limited to less than 205.5 million cubic feet per twelve (12) consecutive month period. This fuel limit combined with the unlimited potential to emit from the direct flame finish oxidizer and infrared oven (deemed an insignificant activity with no rules) is equivalent to less than twenty-five (25.0) tons per twelve (12) consecutive month period of NO_x.

2. Due to the replacement of the regenerative thermal oxidizer with a direct flame oxidizer, Condition D.1.7 has been revised as follows

D.1.7 Testing Requirements [326 IAC 8-1-4] [326 IAC 2-7-6(1)] [326 IAC 2-1.1-11]

During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform an overall VOC reduction efficiency test of the coil coating line, consisting of the prime coater, identified as EU1 with its recuperative thermal oxidizer, identified as EU4/CE-1 and the finish coater, identified as EU5 with its **direct flame finish** ~~multiple-chamber regenerative thermal~~ oxidizer, identified as EU8/CE-2 according to 326 IAC 3-6 (Source Sampling Procedures) using the

methods specified in the rule or using other methods as approved by the Commissioner to demonstrate compliance with 326 IAC 8-2-4 (**Surface coating emission limitations: coil coating operations**). This test shall be repeated at least once every two and one-half (2.5) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

3. Condition D.1.10 (Monitoring) is a Compliance Determination condition and has therefore been moved to be one of the Compliance Determination conditions as follows:

Compliance Monitoring Requirements ~~[326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]~~

D.1.10 Monitoring (326 IAC 8-2-4)

- (a) The recuperative thermal oxidizer, identified as EU4/CE-1 and the direct flame finish oxidizer, identified as EU8/CE-2 for VOC control shall be in operation at all times when necessary to comply with the emission limitation specified in Condition D.1.1.
- (b) When operating, both the recuperative thermal oxidizer, identified as EU4/CE-1 and the direct flame finish oxidizer, identified as EU8/CE-2 shall maintain a minimum operating temperature of 1,150EF for the recuperative thermal oxidizer and 1,200EF for the direct flame finish oxidizer or a minimum temperature, fan amperage and duct velocity as determined by the compliance tests required in Conditions D.1.7 and D.1.8. These minimum operating temperatures are required in order to maintain a minimum destruction efficiency of 86.02% and a minimum capture efficiency of 86.02%.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.
- (d) The owner or operator shall install, calibrate, operate and maintain a device that continuously records the combustion temperature of any effluent gases incinerated to achieve compliance with 0.31 kilograms per liter of coating excluding water (2.6 pounds per gallon).
 - (1) This device shall have an accuracy of $\pm 2.5^{\circ}\text{C}$ or ± 0.75 percent of the temperature being measured expressed in degrees Celsius, which is greater.

Compliance Monitoring Requirements ~~[326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]~~

4. Condition D.1.11(b) is a record keeping requirement and has been moved to Condition D.1.12(f) as follows:

D.1.11 Monitoring Requirements ~~[326 IAC 12, 40 CFR 60.464]~~

The Permittee shall:

- ~~(a)~~ Install, calibrate, operate, and maintain a device that continuously records the combustion temperature of any effluent gases incinerated to achieve compliance with Condition D.1.3. This device shall have an accuracy of ± 2.5 degrees Celsius or ± 0.75 percent of the temperature being measured expressed in degrees Celsius, whichever is greater.

- (b) ~~Record all periods (during actual coating operations) in excess of 3 hours during which the average temperature in the recuperative thermal oxidizer, identified as EU4/CE-1 and the direct flame finish oxidizer, identified as EU8/CE-2 used to control emissions from an effected facility remains more than 28 degrees Celsius (50 degrees Fahrenheit) below the temperature at which compliance with 60.462(a)(2) or (3) was demonstrated during the most recent measurement of thermal oxidizer efficiency required by 40 CFR 60.8. The records required by 40 CFR 60.7 shall identify each such occurrence and its duration.~~

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.12 Record Keeping Requirements [326 IAC 8-1-2] [326 IAC 12-1-1] [40 CFR 60, Subpart TT]

- (f) **Record all periods (during actual coating operations) in excess of 3 hours during which the average temperature in the recuperative thermal oxidizer, identified as EU4/CE-1 and the direct flame finish oxidizer, identified as EU8/CE-2 used to control emissions from an effected facility remains more than 28 degrees Celsius (50 degrees Fahrenheit) below the temperature at which compliance with 60.462(a)(2) or (3) was demonstrated during the most recent measurement of thermal oxidizer efficiency required by 40 CFR 60.8. The records required by 40 CFR 60.7 shall identify each such occurrence and its duration.**
- (ge) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

5. In Condition D.2.4 the cite has been corrected from D.2.1 to D.2.2 as follows:

D.2.4 Testing Requirements [326 IAC 2-7-6(1)] [326 IAC 2-1.1-11]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.2.24 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

case-by-case basis if the owner or operator can demonstrate to the satisfaction of the Administrator that the testing of representative stacks would yield results comparable to those that would be obtained by testing all stacks.

Subpart TT—Standards of Performance for Metal Coil Surface Coating

SOURCE: 47 FR 49612, Nov. 1, 1982, unless otherwise noted.

§ 60.460 Applicability and designation of affected facility.

(a) The provisions of this subpart apply to the following affected facilities in a metal coil surface coating operation: each prime coat operation, each finish coat operation, and each prime and finish coat operation combined when the finish coat is applied wet on wet over the prime coat and both coatings are cured simultaneously.

(b) This subpart applies to any facility identified in paragraph (a) of this section that commences construction, modification, or reconstruction after January 5, 1981.

§ 60.461 Definitions.

(a) All terms used in this subpart not defined below are given the same meaning as in the Act or in subpart A of this part.

Coating means any organic material that is applied to the surface of metal coil.

Coating application station means that portion of the metal coil surface coating operation where the coating is applied to the surface of the metal coil. Included as part of the coating application station is the flashoff area between the coating application station and the curing oven.

Curing oven means the device that uses heat or radiation to dry or cure the coating applied to the metal coil.

Finish coat operation means the coating application station, curing oven, and quench station used to apply and dry or cure the final coating(s) on the surface of the metal coil. Where only a single coating is applied to the metal

coil, that coating is considered a finish coat.

Metal coil surface coating operation means the application system used to apply an organic coating to the surface of any continuous metal strip with thickness of 0.15 millimeter (mm) (0.006 in.) or more that is packaged in a roll or coil.

Prime coat operation means the coating application station, curing oven, and quench station used to apply and dry or cure the initial coating(s) on the surface of the metal coil.

Quench station means that portion of the metal coil surface coating operation where the coated metal coil is cooled, usually by a water spray, after baking or curing.

VOC content means the quantity, in kilograms per liter of coating solids, of volatile organic compounds (VOC's) in a coating.

(b) All symbols used in this subpart not defined below are given the same meaning as in the Act and in subpart A of this part.

C_a = the VOC concentration in each gas stream leaving the control device and entering the atmosphere (parts per million by volume, as carbon).

C_b = the VOC concentration in each gas stream entering the control device (parts per million by volume, as carbon).

C_r = the VOC concentration in each gas stream emitted directly to the atmosphere (parts per million by volume, as carbon).

D_c = density of each coating, as received (kilograms per liter).

D_d = density of each VOC-solvent added to coatings (kilograms per liter).

D_r = density of VOC-solvent recovered by an emission control device (kilograms per liter).

E = VOC destruction efficiency of the control device (fraction).

F = the proportion of total VOC's emitted by an affected facility that enters the control device (fraction).

G = volume-weighted average mass of VOC's in coatings consumed in a calendar month per unit volume of coating solids applied (kilograms per liter).

L_c = the volume of each coating consumed, as received (liters).

L_d = the volume of each VOC-solvent added to coatings (liters).

L_r = the volume of VOC-solvent recovered by an emission control device (liters).

L_s = the volume of coating solids consumed (liters).

M_d = the mass of VOC-solvent added to coatings (kilograms).

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M_o = the mass of VOC's in coatings consumed, as received (kilograms).
 M_r = the mass of VOC's recovered by an emission control device (kilograms).
 N = the volume-weighted average mass of VOC emissions to the atmosphere per unit volume of coating solids applied (kilograms per liter).
 Q_a = the volumetric flow rate of each gas stream leaving the control device and entering the atmosphere (dry standard cubic meters per hour).
 Q_b = the volumetric flow rate of each gas stream entering the control device (dry standard cubic meters per hour).
 Q_c = the volumetric flow rate of each gas stream emitted directly to the atmosphere (dry standard cubic meters per hour).
 R = the overall VOC emission reduction achieved for an affected facility (fraction).
 S = the calculated monthly allowable emission limit (kilograms of VOC per liter of coating solids applied).
 V_s = the proportion of solids in each coating, as received (fraction by volume).
 W_o = the proportion of VOC's in each coating, as received (fraction by weight).

§ 60.462 Standards for volatile organic compounds.

(a) On and after the date on which § 60.8 requires a performance test to be completed, each owner or operator subject to this subpart shall not cause to be discharged into the atmosphere more than:

(1) 0.28 kilogram VOC per liter (kg VOC/l) of coating solids applied for each calendar month for each affected facility that does not use an emission control device(s); or

(2) 0.14 kg VOC/l of coating solids applied for each calendar month for each affected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency; or

(3) 10 percent of the VOC's applied for each calendar month (90 percent emission reduction) for each affected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency; or

(4) A value between 0.14 (or a 90-percent emission reduction) and 0.28 kg VOC/l of coating solids applied for each calendar month for each affected facility that intermittently uses an emission control device operated at the

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most recently demonstrated overall efficiency.

§ 60.463 Performance test and compliance provisions.

(a) Section 60.8(d) and (f) do not apply to the performance test.

(b) The owner or operator of an affected facility shall conduct an initial performance test as required under § 60.8(a) and thereafter a performance test for each calendar month for each affected facility according to the procedures in this section.

(c) The owner or operator shall use the following procedures for determining monthly volume-weighted average emissions of VOC's in kg/l of coating solids applied.

(1) An owner or operator shall use the following procedures for each affected facility that does not use a capture system and control device to comply with the emission limit specified under § 60.462(a)(1). The owner or operator shall determine the composition of the coatings by formulation data supplied by the manufacturer of the coating or by an analysis of each coating, as received, using Reference Method 24. The Administrator may require the owner or operator who uses formulation data supplied by the manufacturer of the coatings to determine the VOC content of coatings using Reference Method 24 or an equivalent or alternative method. The owner or operator shall determine the volume of coating and the mass of VOC-solvent added to coatings from company records on a monthly basis. If a common coating distribution system serves more than one affected facility or serves both affected and existing facilities, the owner or operator shall estimate the volume of coating used at each affected facility by using the average dry weight of coating and the surface area coated by each affected and existing facility or by other procedures acceptable to the Administrator.

(i) Calculate the volume-weighted average of the total mass of VOC's consumed per unit volume of coating solids applied during each calendar month for each affected facility, except as provided under paragraph (c)(1)(iv) of this section. The weighted average of the total mass of VOC's used per unit volume of coating solids applied each

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calendar month is determined by the following procedures.

(A) Calculate the mass of VOC's used ($M_o + M_d$) during each calendar month

for each affected facility by the following equation:

$$M_o + M_d = \sum_{i=1}^n L_{ci} D_{ci} W_{oi} + \sum_{j=1}^m L_{dj} D_{dj} \quad \text{Equation 1}$$

($\sum L_{dj} D_{dj}$ will be 0 if no VOC solvent is added to the coatings, as received) where

n is the number of different coatings used during the calendar month, and
 m is the number of different VOC solvents added to coatings used during the calendar month.

(B) Calculate the total volume of coating solids used (L_s) in each calendar month for each affected facility by the following equation:

$$L_s = \sum_{i=1}^n V_{si} L_{ci} \quad \text{Equation 2}$$

Where:

n is the number of different coatings used during the calendar month.

(C) Calculate the volume-weighted average mass of VOC's used per unit volume of coating solids applied (G) during the calendar month for each affected facility by the following equation:

$$G = \frac{M_o + M_d}{L_s} \quad \text{Equation 3}$$

(ii) Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during the calendar month for each affected facility by the following equation:

$$N = G \quad \text{Equation 4}$$

(iii) Where the volume-weighted average mass of VOC's discharged to the atmosphere per unit volume of coating solids applied (N) is equal to or less than 0.28 kg/l, the affected facility is in compliance.

(iv) If each individual coating used by an affected facility has a VOC content, as received, that is equal to or less than 0.28 kg/l of coating solids, the affected facility is in compliance pro-

vided no VOC's are added to the coatings during distribution or application.

(2) An owner or operator shall use the following procedures for each affected facility that continuously uses a capture system and a control device that destroys VOC's (e.g., incinerator) to comply with the emission limit specified under § 60.462(a) (2) or (3).

(i) Determine the overall reduction efficiency (R) for the capture system and control device.

For the initial performance test, the overall reduction efficiency (R) shall be determined as prescribed in paragraphs (c)(2)(i) (A), (B), and (C) of this section. In subsequent months, the owner or operator may use the most recently determined overall reduction efficiency (R) for the performance test, providing control device and capture system operating conditions have not changed. The procedure in paragraphs (c)(2)(i) (A), (B), and (C) of this section, shall be repeated when directed by the Administrator or when the owner or operator elects to operate the control device or capture system at conditions different from the initial performance test.

(A) Determine the fraction (F) of total VOC's emitted by an affected facility that enters the control device using the following equation:

$$F = \frac{\sum_{i=1}^l C_{bi} Q_{bi}}{\sum_{i=1}^l C_{bi} Q_{bi} + \sum_{n=1}^p C_{ni} Q_{ni}} \quad \text{Equation 5}$$

Where:

l is the number of gas streams entering the control device, and

p is the number of gas streams emitted directly to the atmosphere.

(B) Determine the destruction efficiency of the control device (E) using

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values of the volumetric flow rate of each of the gas streams and the VOC content (as carbon) of each of the gas streams in and out of the device by the following equation:

$$E = \frac{\sum_{i=1}^n Q_{bi}C_{bi} - \sum_{j=1}^m Q_{aj}C_{aj}}{\sum_{i=1}^n Q_{bi}C_{bi}}$$

Equation 6

Where:

n is the number of gas streams entering the control device, and

m is the number of gas streams leaving the control device and entering the atmosphere.

The owner or operator of the affected facility shall construct the VOC emission reduction system so that all volumetric flow rates and total VOC emissions can be accurately determined by the applicable test methods and procedures specified in § 60.466. The owner or operator of the affected facility shall construct a temporary enclosure around the coating applicator and flashoff area during the performance test for the purpose of evaluating the capture efficiency of the system. The enclosure must be maintained at a negative pressure to ensure that all VOC emissions are measurable. If a permanent enclosure exists in the affected facility prior to the performance test and the Administrator is satisfied that the enclosure is adequately containing VOC emissions, no additional enclosure is required for the performance test.

(C) Determine overall reduction efficiency (R) using the following equation:

$$R = EF \quad \text{Equation 7}$$

If the overall reduction efficiency (R) is equal to or greater than 0.90, the affected facility is in compliance and no further computations are necessary. If the overall reduction efficiency (R) is less than 0.90, the average total VOC emissions to the atmosphere per unit volume of coating solids applied (N) shall be computed as follows.

(ii) Calculate the volume-weighted average of the total mass of VOC's per unit volume of coating solids applied (G) during each calendar month for each affected facility using equations

in paragraphs (c)(1)(i) (A), (B), and (C) of this section.

(iii) Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during each calendar month by the following equation:

$$N = G(1 - R) \quad \text{Equation 8}$$

(iv) If the volume-weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to 0.14 kg/l of coating solids applied, the affected facility is in compliance. Each monthly calculation is a performance test.

(3) An owner or operator shall use the following procedure for each affected facility that uses a control device that recovers the VOC's (e.g., carbon adsorber) to comply with the applicable emission limit specified under § 60.462(a) (2) or (3).

(i) Calculate the total mass of VOC's consumed ($M_o + M_d$) during each calendar month for each affected facility using equation (1).

(ii) Calculate the total mass of VOC's recovered (M_r) during each calendar month using the following equation:

$$M_r = L_r D_r \quad \text{Equation 9}$$

(iii) Calculate the overall reduction efficiency of the control device (R) for each calendar month for each affected facility using the following equation:

$$R = \frac{M_r}{M_o + M_d} \quad \text{Equation 10}$$

If the overall reduction efficiency (R) is equal to or greater than 0.90, the affected facility is in compliance and no further computation are necessary. If the overall reduction efficiency (R) is less than 0.90, the average total VOC emissions to the atmosphere per unit volume of coating solids applied (N) must be computed as follows.

(iv) Calculate the total volume of coating solids consumed (L_s) and the volume-weighted average of the total mass of VOC's per unit volume of coating solids applied (G) during each calendar month for each affected facility using equations in paragraphs (c)(1)(i) (B) and (C) of this section.

(v) Calculate the volume-weighted average mass of VOC's emitted to the

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atmosphere (N) for each calendar month for each affected facility using equation (8).

(vi) If the weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to 0.14 kg/l of coating solids applied, the affected facility is in compliance. Each monthly calculation is a performance test.

(4) An owner or operator shall use the following procedures for each affected facility that intermittently uses a capture system and a control device to comply with the emission limit specified in § 60.462(a)(4).

(i) Calculate the total volume of coating solids applied without the control device in operation (L_{sn}) during each calendar month for each affected facility using the following equation:

$$L_{sn} = \sum_{i=1}^n V_{si} L_{ci} \quad \text{Equation 11}$$

$$M_{on} + M_{dn} + \sum_{i=1}^n L_{ci} D_{ci} W_{oi} + \sum_{j=1}^m L_{dj} D_{dj} \quad \text{Equation 13}$$

Where:

n is the number of different coatings used without the control device in operation during the calendar month, and

m is the number of different VOC-solvents added to coatings used without the control device in operation during the calendar month.

(iv) Calculate the volume-weighted average of the total mass of VOC's consumed per unit volume of coating solids applied without the control device

Where:

n is the number of coatings used during the calendar month without the control device in operation.

(ii) Calculate the total volume of coating solids applied with the control device in operation (L_{sc}) during each calendar month for each affected facility using the following equation:

$$L_{sc} = \sum_{i=1}^n V_{si} L_{ci} \quad \text{Equation 12}$$

Where:

m is the number of coatings used during the calendar month with the control device in operation.

(iii) Calculate the mass of VOC's used without the control device in operation ($M_{on} + M_{dn}$) during each calendar month for each affected facility using the following equation:

in operation (G_n) during each calendar month for each affected facility using the following equation:

$$G_n = \frac{M_{on} + M_{dn}}{L_{sn}} \quad \text{Equation 14}$$

(v) Calculate the mass of VOC's used with the control device in operation ($M_{oc} + M_{dc}$) during each calendar month for each affected facility using the following equation:

$$M_{oc} + M_{dc} = \sum_{i=1}^n L_{ci} D_{ci} W_{oi} + \sum_{j=1}^m L_{dj} D_{dj} \quad \text{Equation 15}$$

Where:

n is the number of different coatings used with the control device in operation during the calendar month, and

m is the number of different VOC-solvents added to coatings used with the control

device in operation during the calendar month.

(vi) Calculate the volume-weighted average of the total mass of VOC's used

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per unit volume of coating solids applied with the control device in operation (G_c) during each calendar month for each affected facility using the following equation:

$$G = \frac{M_{oc} + M_{dc}}{L_{sn}} \quad \text{Equation 16}$$

(vii) Determine the overall reduction efficiency (R) for the capture system

$$N = \frac{G_n L_{sn} + G_c L_{sc}(1 - R)}{L_{sn} + L_{sc}} \quad \text{Equation 17}$$

Equation 17

(ix) Calculate the emission limit(s) for each calendar month for each affected facility using the following equation:

$$S = \frac{0.28 L_{sn} + 0.1 G_c L_{sc}}{L_{ns} + L_{sc}}$$

or

$$\frac{0.28 L_{sn} + 0.14 L_{sc}}{L_{sn} + L_{sc}} \quad \text{Equation 18}$$

whichever is greater.

(x) If the volume-weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to the calculated emission limit (S) for the calendar month, the affected facility is in compliance. Each monthly calculation is a performance test.

[47 FR 49612, Nov. 1, 1982; 48 FR 1056, Jan. 10, 1983]

§ 60.464 Monitoring of emissions and operations.

(a) Where compliance with the numerical limit specified in § 60.462(a) (1) or (2) is achieved through the use of low VOC-content coatings without the use of emission control devices or through the use of higher VOC-content coatings in conjunction with emission control devices, the owner or operator shall compute and record the average VOC content of coatings applied during each calendar month for each affected

and control device using the procedures in paragraphs (c)(2)(i) (A), (B), and (C) or paragraphs (c)(3) (i), (ii), and (iii) of this section, whichever is applicable.

(viii) Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during each calendar month for each affected facility using the following equation:

facility, according to the equations provided in § 60.463.

(b) Where compliance with the limit specified in § 60.462(a)(4) is achieved through the intermittent use of emission control devices, the owner or operator shall compute and record for each affected facility the average VOC content of coatings applied during each calendar month according to the equations provided in § 60.463.

(c) If thermal incineration is used, each owner or operator subject to the provisions of this subpart shall install, calibrate, operate, and maintain a device that continuously records the combustion temperature of any effluent gases incinerated to achieve compliance with § 60.462(a)(2), (3), or (4). This device shall have an accuracy of ± 2.5 °C. or ± 0.75 percent of the temperature being measured expressed in degrees Celsius, which is greater. Each owner or operator shall also record all periods (during actual coating operations) in excess of 3 hours during which the average temperature in any thermal incinerator used to control emissions from an affected facility remains more than 28 °C (50 °F) below the temperature at which compliance with § 60.462(a)(2), (3), or (4) was demonstrated during the most recent measurement of incinerator efficiency required by § 60.8. The records required by § 60.7 shall identify each such occurrence and its duration. If catalytic incineration is used, the owner or operator shall install, calibrate, operate, and maintain a device to monitor and

record continuously the gas temperature both upstream and downstream of the incinerator catalyst bed. This device shall have an accuracy of ± 2.5 °C, or ± 0.75 percent of the temperature being measured expressed in degrees Celsius, whichever is greater. During coating operations, the owner or operator shall record all periods in excess of 3 hours where the average difference between the temperature upstream and downstream of the incinerator catalyst bed remains below 80 percent of the temperature difference at which compliance was demonstrated during the most recent measurement of incinerator efficiency or when the inlet temperature falls more than 28 °C (50 °F) below the temperature at which compliance with § 60.462(a)(2), (3), or (4) was demonstrated during the most recent measurement of incinerator efficiency required by § 60.8. The records required by § 60.7 shall identify each such occurrence and its duration.

[47 FR 49612, Nov. 1, 1982; 48 FR 1056, Jan. 10, 1983]

§ 60.465 Reporting and recordkeeping requirements.

(a) Where compliance with the numerical limit specified in § 60.462(a) (1), (2), or (4) is achieved through the use of low VOC-content coatings without emission control devices or through the use of higher VOC-content coatings in conjunction with emission control devices, each owner or operator subject to the provisions of this subpart shall include in the initial compliance report required by § 60.8 the weighted average of the VOC content of coatings used during a period of one calendar month for each affected facility. Where compliance with § 60.462(a)(4) is achieved through the intermittent use of a control device, reports shall include separate values of the weighted average VOC content of coatings used with and without the control device in operation.

(b) Where compliance with § 60.462(a)(2), (3), or (4) is achieved through the use of an emission control device that destroys VOC's, each owner or operator subject to the provisions of this subpart shall include the following data in the initial compliance report required by § 60.8:

(1) The overall VOC destruction rate used to attain compliance with § 60.462(a)(2), (3), or (4) and the calculated emission limit used to attain compliance with § 60.462(a)(4); and

(2) The combustion temperature of the thermal incinerator or the gas temperature, both upstream and downstream of the incinerator catalyst bed, used to attain compliance with § 60.462(a)(2), (3), or (4).

(c) Following the initial performance test, the owner or operator of an affected facility shall identify, record, and submit a written report to the Administrator every calendar quarter of each instance in which the volume-weighted average of the local mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified under § 69.462. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to the Administrator semiannually.

(d) The owner or operator of each affected facility shall also submit reports at the frequency specified in § 60.7(c) when the incinerator temperature drops as defined under § 69.464(c). If no such periods occur, the owner or operator shall state this in the report.

(e) Each owner or operator subject to the provisions of this subpart shall maintain at the source, for a period of at least 2 years, records of all data and calculations used to determine monthly VOC emissions from each affected facility and to determine the monthly emission limit, where applicable. Where compliance is achieved through the use of thermal incineration, each owner or operator shall maintain, at the source, daily records of the incinerator combustion temperature. If catalytic incineration is used, the owner or operator shall maintain at the source daily records of the gas temperature, both upstream and downstream of the incinerator catalyst bed.

[47 FR 49612, Nov. 1, 1982, as amended at 55 FR 51383, Dec. 13, 1990; 56 FR 20497, May 3, 1991]

§ 60.466 Test methods and procedures.

(a) The reference methods in appendix A to this part, except as provided

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under § 60.8(b), shall be used to determine compliance with § 60.462 as follows:

(1) Reference Method 24, or data provided by the formulator of the coating for determining the VOC content of each coating as applied to the surface of the metal coil. In the event of a dispute, Reference Method 24 shall be the reference method. When VOC content of waterborne coatings, determined by Reference Method 24, is used to determine compliance of affected facilities, the results of the Reference Method 24 analysis shall be adjusted as described in section 4.4 of Reference Method 24;

(2) Reference Method 25, both for measuring the VOC concentration in each gas stream entering and leaving the control device on each stack equipped with an emission control device and for measuring the VOC concentration in each gas stream emitted directly to the atmosphere;

(3) Method 1 for sample and velocity traverses;

(4) Method 2 for velocity and volumetric flow rate;

(5) Method 3 for gas analysis; and

(6) Method 4 for stack gas moisture.

(b) For Method 24, the coating sample must be at least a 1-liter sample taken at a point where the sample will be representative of the coating as applied to the surface of the metal coil.

(c) For Method 25, the sampling time for each of three runs is to be at least 60 minutes, and the minimum sampling volume is to be at least 0.003 dry standard cubic meter (DSCM); however, shorter sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the Administrator.

(d) The Administrator will approve testing of representative stacks on a case-by-case basis if the owner or operator can demonstrate to the satisfaction of the Administrator that testing of representative stacks yields results comparable to those that would be obtained by testing all stacks.

[47 FR 49612, Nov. 1, 1982, as amended at 51 FR 22938, June 24, 1986]

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Subpart UU—Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture

SOURCE: 47 FR 34143, Aug. 6, 1982, unless otherwise noted.

§ 60.470 Applicability and designation of affected facilities.

(a) The affected facilities to which this subpart applies are each saturator and each mineral handling and storage facility at asphalt roofing plants; and each asphalt storage tank and each blowing still at asphalt processing plants, petroleum refineries, and asphalt roofing plants.

(b) Any saturator or mineral handling and storage facility under paragraph (a) of this section that commences construction or modification after November 18, 1980, is subject to the requirements of this subpart. Any asphalt storage tank or blowing still that processes and/or stores asphalt used for roofing only or for roofing and other purposes, and that commences construction or modification after November 18, 1980, is subject to the requirements of this subpart.

Any asphalt storage tank or blowing still that processes and/or stores only nonroofing asphalts and that commences construction or modification after May 26, 1981, is subject to the requirements of this subpart.

§ 60.471 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

Afterburner (A/B) means an exhaust gas incinerator used to control emissions of particulate matter.

Asphalt processing means the storage and blowing of asphalt.

Asphalt processing plant means a plant which blows asphalt for use in the manufacture of asphalt products.

Asphalt roofing plant means a plant which produces asphalt roofing products (shingles, roll roofing, siding, or saturated felt).

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electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format.

[52 FR 47842, Dec. 16, 1987, as amended at 54 FR 51820, 51825, Dec. 18, 1989; 60 FR 28062, May 30, 1995; 61 FR 14031, Mar. 29, 1996; 62 FR 52641, Oct. 8, 1997; 63 FR 49455, Sept. 16, 1998; 64 FR 7464, Feb. 12, 1999]

Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

SOURCE: 55 FR 37683, Sept. 12, 1990, unless otherwise noted.

§ 60.40c Applicability and delegation of authority.

(a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr)) or less, but greater than or equal to 2.9 MW (10 million Btu/hr).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, § 60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units which meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO₂) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§ 60.42c, 60.43c, 60.44c, 60.45c,

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60.46c, or 60.47c) during periods of combustion research, as defined in § 60.41c.

(d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under § 60.14.

[55 FR 37683, Sept. 12, 1990, as amended at 61 FR 20736, May 8, 1996]

§ 60.41c Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam ch a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society for Testing and Materials in ASTM D388-77, "Standard Specification for Classification of Coals by Rank" (incorporated by reference—see § 60.17); coal refuse; and petroleum coke. Synthetic fuels derived from coal for the purpose of creating useful heat, including but not limited to solvent-refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures, are included in this definition for the purposes of this subpart.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

Cogeneration steam generating unit means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

Combined cycle system means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

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electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format.

[52 FR 47842, Dec. 16, 1987, as amended at 54 FR 51820, 51825, Dec. 18, 1989; 60 FR 28062, May 30, 1995; 61 FR 14031, Mar. 29, 1996; 62 FR 52641, Oct. 8, 1997; 63 FR 49455, Sept. 16, 1998; 64 FR 7464, Feb. 12, 1999]

Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

SOURCE: 55 FR 37683, Sept. 12, 1990, unless otherwise noted.

§ 60.40c Applicability and delegation of authority.

(a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr)) or less, but greater than or equal to 2.9 MW (10 million Btu/hr).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, § 60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units which meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO₂) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§ 60.42c, 60.43c, 60.44c, 60.45c,

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60.46c, or 60.47c) during periods of combustion research, as defined in § 60.41c.

(d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under § 60.14.

[55 FR 37683, Sept. 12, 1990, as amended at 61 FR 20736, May 8, 1996]

§ 60.41c Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam ch a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society for Testing and Materials in ASTM D388-77, "Standard Specification for Classification of Coals by Rank" (incorporated by reference—see § 60.17); coal refuse; and petroleum coke. Synthetic fuels derived from coal for the purpose of creating useful heat, including but not limited to solvent-refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures, are included in this definition for the purposes of this subpart.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

Cogeneration steam generating unit means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

Combined cycle system means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

Combustion research means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (i.e., the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

Conventional technology means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78, "Standard Specification for Fuel Oils" (incorporated by reference—see § 60.17).

Dry flue gas desulfurization technology means a sulfur dioxide (SO₂) control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Emerging technology means any SO₂ control system that is not defined as a conventional technology under this

section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under § 60.48c(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR Parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Fluidized bed combustion technology means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

Heat transfer medium means any material that is used to transfer heat from one point to another point.

Maximum design heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

Natural gas means (1) a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane, or (2) liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835-86, "Standard Specification for Liquefied Petroleum

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Gases” (incorporated by reference—see § 60.17).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

Potential sulfur dioxide emission rate means the theoretical SO₂ emissions (nanograms per joule [ng/J], or pounds per million Btu [lb/million Btu] heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396–78, “Standard Specification for Fuel Oils” (incorporated by reference—see § 60.17).

Steam generating unit means a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Wet flue gas desulfurization technology means an SO₂ control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where

the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of particulate matter (PM) or SO₂.

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

[55 FR 37683, Sept. 12, 1990, as amended at 61 FR 20736, May 8, 1996]

§ 60.42c Standard for sulfur dioxide.

(a) Except as provided in paragraphs (b), (c), and (e) of this section, on and after the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, the owner the operator of an affected facility that combusts only coal shall neither: (1) cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 10 percent (0.10) of the potential SO₂ emission rate (90 percent reduction); nor (2) cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 520 ng/J (1.2 lb/million Btu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 90 percent SO₂ reduction requirement specified in this paragraph and the emission limit is determined pursuant to paragraph (e)(2) of this section.

(b) Except as provided in paragraphs (c) and (e) of this section, on and after the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, the owner or operator of an affected facility that:

(1) Combusts coal refuse alone in a fluidized bed combustion steam generating unit shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of

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Gases” (incorporated by reference—see § 60.17).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

Potential sulfur dioxide emission rate means the theoretical SO₂ emissions (nanograms per joule [ng/J], or pounds per million Btu [lb/million Btu] heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396–78, “Standard Specification for Fuel Oils” (incorporated by reference—see § 60.17).

Steam generating unit means a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Wet flue gas desulfurization technology means an SO₂ control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where

the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of particulate matter (PM) or SO₂.

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

[55 FR 37683, Sept. 12, 1990, as amended at 61 FR 20736, May 8, 1996]

§ 60.42c Standard for sulfur dioxide.

(a) Except as provided in paragraphs (b), (c), and (e) of this section, on and after the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, the owner the operator of an affected facility that combusts only coal shall neither: (1) cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 10 percent (0.10) of the potential SO₂ emission rate (90 percent reduction); nor (2) cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 520 ng/J (1.2 lb/million Btu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 90 percent SO₂ reduction requirement specified in this paragraph and the emission limit is determined pursuant to paragraph (e)(2) of this section.

(b) Except as provided in paragraphs (c) and (e) of this section, on and after the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, the owner or operator of an affected facility that:

(1) Combusts coal refuse alone in a fluidized bed combustion steam generating unit shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of

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20 percent (0.20) of the potential SO₂ emission rate (80 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 520 ng/J (1.2 lb/million Btu) heat input. If coal is fired with coal refuse, the affected facility is subject to paragraph (a) of this section. If oil or any other fuel (except coal) is fired with coal refuse, the affected facility is subject to the 90 percent SO₂ reduction requirement specified in paragraph (a) of this section and the emission limit determined pursuant to paragraph (e)(2) of this section.

(2) Combusts only coal and that uses an emerging technology for the control of SO₂ emissions shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 50 percent (0.50) of the potential SO₂ emission rate (50 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 260 ng/J (0.60 lb/million Btu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 50 percent SO₂ reduction requirement specified in this paragraph and the emission limit determined pursuant to paragraph (e)(2) of this section.

(c) On and after the date on which the initial performance test is completed or required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, alone or in combination with any other fuel, and is listed in paragraphs (c)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of the emission limit determined pursuant to paragraph (e)(2) of this section. Percent reduction requirements are not applicable to affected facilities under this paragraph.

(1) Affected facilities that have a heat input capacity of 22 MW (75 million Btu/hr) or less.

(2) Affected facilities that have an annual capacity for coal of 55 percent (0.55) or less and are subject to a Feder-

ally enforceable requirement limiting operation of the affected facility to an annual capacity factor for coal of 55 percent (0.55) or less.

(3) Affected facilities located in a noncontinental area.

(4) Affected facilities that combust coal in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from exhaust gases entering the duct burner.

(d) On and after the date on which the initial performance test is completed or required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 215 ng/J (0.50 lb/million Btu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

(e) On and after the date on which the initial performance test is completed or required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, or coal and oil with any other fuel shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of the following:

(1) The percent of potential SO₂ emission rate required under paragraph (a) or (b)(2) of this section, as applicable, for any affected facility that

(i) Combusts coal in combination with any other fuel,

(ii) Has a heat input capacity greater than 22 MW (75 million Btu/hr), and

(iii) Has an annual capacity factor for coal greater than 55 percent (0.55); and

(2) The emission limit determined according to the following formula for any affected facility that combusts

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coal, oil, or coal and oil with any other fuel:

$$E_s = (K_a H_a + K_b H_b + K_c H_c) / (H_a + H_b + H_c)$$

where:

E_s is the SO₂ emission limit, expressed in ng/J or lb/million Btu heat input,

K_a is 520 ng/J (1.2 lb/million Btu),

K_b is 260 ng/J (0.60 lb/million Btu),

K_c is 215 ng/J (0.50 lb/million Btu),

H_a is the heat input from the combustion of coal, except coal combusted in an affected facility subject to paragraph (b)(2) of this section, in Joules (J) [million Btu]

H_b is the heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (million Btu)

H_c is the heat input from the combustion of oil, in J (million Btu).

(f) Reduction in the potential SO₂ emission rate through fuel pretreatment is not credited toward the percent reduction requirement under paragraph (b)(2) of this section unless:

(1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO₂ emission rate; and

(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO₂ control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.

(g) Except as provided in paragraph (h) of this section, compliance with the percent reduction requirements, fuel oil sulfur limits, and emission limits of this section shall be determined on a 30-day rolling average basis.

(h) For affected facilities listed under paragraphs (h)(1), (2), or (3) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under § 60.48c(f)(1), (2), or (3), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 million Btu/hr).

(2) Residual oil-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 million Btu/hr).

(3) Coal-fired facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 million Btu/hr).

(i) The SO₂ emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(j) Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

§ 60.43c Standard for particulate matter.

(a) On and after the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal or combusts mixtures of coal with other fuels and has a heat input capacity of 8.7 MW (30 million Btu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 22 ng/J (0.05 lb/million Btu) heat input if the affected facility combusts only coal, or combusts coal with other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 43 ng/J (0.10 lb/million Btu) heat input if the affected facility combusts coal with other fuels, has an annual capacity factor for the other fuels greater than 10 percent (0.10), and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

(b) On and after the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts wood or combusts mixtures of wood with other fuels (except coal) and has a heat input capacity of 8.7 MW (30 million Btu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in

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coal, oil, or coal and oil with any other fuel:

$$E_s = (K_a H_a + K_b H_b + K_c H_c) / (H_a + H_b + H_c)$$

where:

E_s is the SO₂ emission limit, expressed in ng/J or lb/million Btu heat input,

K_a is 520 ng/J (1.2 lb/million Btu),

K_b is 260 ng/J (0.60 lb/million Btu),

K_c is 215 ng/J (0.50 lb/million Btu),

H_a is the heat input from the combustion of coal, except coal combusted in an affected facility subject to paragraph (b)(2) of this section, in Joules (J) [million Btu]

H_b is the heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (million Btu)

H_c is the heat input from the combustion of oil, in J (million Btu).

(f) Reduction in the potential SO₂ emission rate through fuel pretreatment is not credited toward the percent reduction requirement under paragraph (b)(2) of this section unless:

(1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO₂ emission rate; and

(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO₂ control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.

(g) Except as provided in paragraph (h) of this section, compliance with the percent reduction requirements, fuel oil sulfur limits, and emission limits of this section shall be determined on a 30-day rolling average basis.

(h) For affected facilities listed under paragraphs (h)(1), (2), or (3) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under § 60.48c(f)(1), (2), or (3), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 million Btu/hr).

(2) Residual oil-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 million Btu/hr).

(3) Coal-fired facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 million Btu/hr).

(i) The SO₂ emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(j) Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

§ 60.43c Standard for particulate matter.

(a) On and after the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal or combusts mixtures of coal with other fuels and has a heat input capacity of 8.7 MW (30 million Btu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 22 ng/J (0.05 lb/million Btu) heat input if the affected facility combusts only coal, or combusts coal with other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 43 ng/J (0.10 lb/million Btu) heat input if the affected facility combusts coal with other fuels, has an annual capacity factor for the other fuels greater than 10 percent (0.10), and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

(b) On and after the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts wood or combusts mixtures of wood with other fuels (except coal) and has a heat input capacity of 8.7 MW (30 million Btu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in

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excess of the following emissions limits:

(1) 43 ng/J (0.10 lb/million Btu) heat input if the affected facility has an annual capacity factor for wood greater than 30 percent (0.30); or

(2) 130 ng/J (0.30 lb/million Btu) heat input if the affected facility has an annual capacity factor for wood of 30 percent (0.30) or less and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for wood of 30 percent (0.30) or less.

(c) On and after the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 million Btu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

(d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.

§ 60.44c Compliance and performance test methods and procedures for sulfur dioxide.

(a) Except as provided in paragraphs (g) and (h) of this section and in § 60.8(b), performance tests required under § 60.8 shall be conducted following the procedures specified in paragraphs (b), (c), (d), (e), and (f) of this section, as applicable. Section 60.8(f) does not apply to this section. The 30-day notice required in § 60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(b) The initial performance test required under § 60.8 shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the percent reduction requirements and SO₂ emission limits under § 60.42c shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after

achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after the initial startup of the facility. The steam generating unit load during the 30-day period does not have to be the maximum design heat input capacity, but must be representative of future operating conditions.

(c) After the initial performance test required under paragraph (b) and § 60.8, compliance with the percent reduction requirements and SO₂ emission limits under § 60.42c is based on the average percent reduction and the average SO₂ emission rates for 30 consecutive steam generating unit operating days. A separate performance test is completed at the end of each steam generating unit operating day, and a new 30-day average percent reduction and SO₂ emission rate are calculated to show compliance with the standard.

(d) If only coal, only oil, or a mixture of coal and oil is combusted in an affected facility, the procedures in Method 19 are used to determine the hourly SO₂ emission rate (E_{ho}) and the 30-day average SO₂ emission rate (E_{ao}). The hourly averages used to compute the 30-day averages are obtained from the continuous emission monitoring system (CEMS). Method 19 shall be used to calculate E_{ao} when using daily fuel sampling or Method 6B.

(e) If coal, oil, or coal and oil are combusted with other fuels:

(1) An adjusted E_{ho} (E_{hoO}) is used in Equation 19-19 of Method 19 to compute the adjusted E_{ao} (E_{aoO}). The E_{hoO} is computed using the following formula:

$$E_{hoO} = [E_{ho} - E_w(1 - X_k)] / X_k$$

where:

E_{hoO} is the adjusted E_{ho} , ng/J (lb/million Btu)

E_{ho} is the hourly SO₂ emission rate, ng/J (lb/million Btu)

E_w is the SO₂ concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 9, ng/J (lb/million Btu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E_w if the owner or operator elects to assume $E_w=0$.

X_k is the fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19.

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excess of the following emissions limits:

(1) 43 ng/J (0.10 lb/million Btu) heat input if the affected facility has an annual capacity factor for wood greater than 30 percent (0.30); or

(2) 130 ng/J (0.30 lb/million Btu) heat input if the affected facility has an annual capacity factor for wood of 30 percent (0.30) or less and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for wood of 30 percent (0.30) or less.

(c) On and after the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 million Btu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

(d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.

§ 60.44c Compliance and performance test methods and procedures for sulfur dioxide.

(a) Except as provided in paragraphs (g) and (h) of this section and in § 60.8(b), performance tests required under § 60.8 shall be conducted following the procedures specified in paragraphs (b), (c), (d), (e), and (f) of this section, as applicable. Section 60.8(f) does not apply to this section. The 30-day notice required in § 60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(b) The initial performance test required under § 60.8 shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the percent reduction requirements and SO₂ emission limits under § 60.42c shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after

achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after the initial startup of the facility. The steam generating unit load during the 30-day period does not have to be the maximum design heat input capacity, but must be representative of future operating conditions.

(c) After the initial performance test required under paragraph (b) and § 60.8, compliance with the percent reduction requirements and SO₂ emission limits under § 60.42c is based on the average percent reduction and the average SO₂ emission rates for 30 consecutive steam generating unit operating days. A separate performance test is completed at the end of each steam generating unit operating day, and a new 30-day average percent reduction and SO₂ emission rate are calculated to show compliance with the standard.

(d) If only coal, only oil, or a mixture of coal and oil is combusted in an affected facility, the procedures in Method 19 are used to determine the hourly SO₂ emission rate (E_{ho}) and the 30-day average SO₂ emission rate (E_{ao}). The hourly averages used to compute the 30-day averages are obtained from the continuous emission monitoring system (CEMS). Method 19 shall be used to calculate E_{ao} when using daily fuel sampling or Method 6B.

(e) If coal, oil, or coal and oil are combusted with other fuels:

(1) An adjusted E_{ho} (E_{hoO}) is used in Equation 19-19 of Method 19 to compute the adjusted E_{ao} (E_{aoO}). The E_{hoO} is computed using the following formula:

$$E_{hoO} = [E_{ho} - E_w(1 - X_k)]/X_k$$

where:

E_{hoO} is the adjusted E_{ho} , ng/J (lb/million Btu)

E_{ho} is the hourly SO₂ emission rate, ng/J (lb/million Btu)

E_w is the SO₂ concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 9, ng/J (lb/million Btu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E_w if the owner or operator elects to assume $E_w=0$.

X_k is the fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19.

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(2) The owner or operator of an affected facility that qualifies under the provisions of § 60.42c(c) or (d) [where percent reduction is not required] does not have to measure the parameters E_w or X_k if the owner or operator of the affected facility elects to measure emission rates of the coal or oil using the fuel sampling and analysis procedures under Method 19.

(f) Affected facilities subject to the percent reduction requirements under § 60.42c(a) or (b) shall determine compliance with the SO₂ emission limits under § 60.42c pursuant to paragraphs (d) or (e) of this section, and shall determine compliance with the percent reduction requirements using the following procedures:

(1) If only coal is combusted, the percent of potential SO₂ emission rate is computed using the following formula:

$$\%P_s = 100(1 - \%R_g/100)(1 - \%R_f/100)$$

where

$\%P_s$ is the percent of potential SO₂ emission rate, in percent

$\%R_g$ is the SO₂ removal efficiency of the control device as determined by Method 19, in percent

$\%R_f$ is the SO₂ removal efficiency of fuel pretreatment as determined by Method 19, in percent

(2) If coal, oil, or coal and oil are combusted with other fuels, the same procedures required in paragraph (f)(1) of this section are used, except as provided for in the following:

(i) To compute the $\%P_s$, an adjusted $\%R_g$ ($\%R_{go}$) is computed from E_{aoO} from paragraph (e)(1) of this section and an adjusted average SO₂ inlet rate (E_{aiO}) using the following formula:

$$\%R_{go} = 100 [1.0 - E_{aoO}/E_{aiO}]$$

where:

$\%R_{go}$ is the adjusted $\%R_g$, in percent

E_{aoO} is the adjusted E_{ao} , ng/J (lb/million Btu)

E_{aiO} is the adjusted average SO₂ inlet rate, ng/J (lb/million Btu)

(ii) To compute E_{aiO} , an adjusted hourly SO₂ inlet rate (E_{hiO}) is used. The E_{hiO} is computed using the following formula:

$$E_{hiO} = [E_{hi} - E_w(1 - X_k)]/X_k$$

where:

E_{hiO} is the adjusted E_{hi} , ng/J (lb/million Btu)

E_{hi} is the hourly SO₂ inlet rate, ng/J (lb/million Btu)

E_w is the SO₂ concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 19, ng/J (lb/million Btu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E_w if the owner or operator elects to assume $E_w = 0$.

X_k is the fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19.

(g) For oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil sulfur limits under § 60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil contains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under § 60.46c(d)(2).

(h) For affected facilities subject to § 60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, the performance test shall consist of the certification, the certification from the fuel supplier, as described under § 60.48c(f)(1), (2), or (3), as applicable.

(i) The owner or operator of an affected facility seeking to demonstrate compliance with the SO₂ standards under § 60.42c(c)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour averaged firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the

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affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(j) The owner or operator of an affected facility shall use all valid SO₂ emissions data in calculating %P_s and E_{ho} under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under § 60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating %P_s or E_{ho} pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

§ 60.45c Compliance and performance test methods and procedures for particulate matter.

(a) The owner or operator of an affected facility subject to the PM and/or opacity standards under § 60.43c shall conduct an initial performance test as required under § 60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods.

(1) Method 1 shall be used to select the sampling site and the number of traverse sampling points. The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry square cubic meters (dscm) [60 dry square cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(2) Method 3 shall be used for gas analysis when applying Method 5, Method 5B, or Method 17.

(3) Method 5, Method 5B, or Method 17 shall be used to measure the concentration of PM as follows:

(i) Method 5 may be used only at affected facilities without wet scrubber systems.

(ii) Method 17 may be used at affected facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of Sections 2.1 and 2.3 of Method 5B may be used in Method 17 only if Method 17 is used in conjunction with a wet scrub-

ber system. Method 17 shall not be used in conjunction with a wet scrubber system if the effluent is saturated or laden with water droplets.

(iii) Method 5B may be used in conjunction with a wet scrubber system.

(4) For Method 5 or Method 5B, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160 °C (320 °F).

(5) For determination of PM emissions, an oxygen or carbon dioxide measurement shall be obtained simultaneously with each run of Method 5, Method 5B, or Method 17 by traversing the duct at the same sampling location.

(6) For each run using Method 5, Method 5B, or Method 17, the emission rates expressed in ng/J (lb/million Btu) heat input shall be determined using:

(i) The oxygen or carbon dioxide measurements and PM measurements obtained under this section,

(ii) The dry basis F-factor, and

(iii) The dry basis emission rate calculation procedure contained in Method 19 (appendix A).

(7) Method 9 (6-minute average of 24 observations) shall be used for determining the opacity of stack emissions.

(b) The owner or operator of an affected facility seeking to demonstrate compliance with the PM standards under § 60.43c(b)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

§ 60.46c Emission monitoring for sulfur dioxide

(a) Except as provided in paragraphs (d) and (e) of this section, the owner or

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affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(j) The owner or operator of an affected facility shall use all valid SO₂ emissions data in calculating %P_s and E_{ho} under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under § 60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating %P_s or E_{ho} pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

§ 60.45c Compliance and performance test methods and procedures for particulate matter.

(a) The owner or operator of an affected facility subject to the PM and/or opacity standards under § 60.43c shall conduct an initial performance test as required under § 60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods.

(1) Method 1 shall be used to select the sampling site and the number of traverse sampling points. The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry square cubic meters (dscm) [60 dry square cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(2) Method 3 shall be used for gas analysis when applying Method 5, Method 5B, or Method 17.

(3) Method 5, Method 5B, or Method 17 shall be used to measure the concentration of PM as follows:

(i) Method 5 may be used only at affected facilities without wet scrubber systems.

(ii) Method 17 may be used at affected facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of Sections 2.1 and 2.3 of Method 5B may be used in Method 17 only if Method 17 is used in conjunction with a wet scrub-

ber system. Method 17 shall not be used in conjunction with a wet scrubber system if the effluent is saturated or laden with water droplets.

(iii) Method 5B may be used in conjunction with a wet scrubber system.

(4) For Method 5 or Method 5B, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160 °C (320 °F).

(5) For determination of PM emissions, an oxygen or carbon dioxide measurement shall be obtained simultaneously with each run of Method 5, Method 5B, or Method 17 by traversing the duct at the same sampling location.

(6) For each run using Method 5, Method 5B, or Method 17, the emission rates expressed in ng/J (lb/million Btu) heat input shall be determined using:

(i) The oxygen or carbon dioxide measurements and PM measurements obtained under this section,

(ii) The dry basis F-factor, and

(iii) The dry basis emission rate calculation procedure contained in Method 19 (appendix A).

(7) Method 9 (6-minute average of 24 observations) shall be used for determining the opacity of stack emissions.

(b) The owner or operator of an affected facility seeking to demonstrate compliance with the PM standards under § 60.43c(b)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

§ 60.46c Emission monitoring for sulfur dioxide

(a) Except as provided in paragraphs (d) and (e) of this section, the owner or

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affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(j) The owner or operator of an affected facility shall use all valid SO₂ emissions data in calculating %P_s and E_{ho} under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under § 60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating %P_s or E_{ho} pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

§ 60.45c Compliance and performance test methods and procedures for particulate matter.

(a) The owner or operator of an affected facility subject to the PM and/or opacity standards under § 60.43c shall conduct an initial performance test as required under § 60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods.

(1) Method 1 shall be used to select the sampling site and the number of traverse sampling points. The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry square cubic meters (dscm) [60 dry square cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(2) Method 3 shall be used for gas analysis when applying Method 5, Method 5B, or Method 17.

(3) Method 5, Method 5B, or Method 17 shall be used to measure the concentration of PM as follows:

(i) Method 5 may be used only at affected facilities without wet scrubber systems.

(ii) Method 17 may be used at affected facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of Sections 2.1 and 2.3 of Method 5B may be used in Method 17 only if Method 17 is used in conjunction with a wet scrub-

ber system. Method 17 shall not be used in conjunction with a wet scrubber system if the effluent is saturated or laden with water droplets.

(iii) Method 5B may be used in conjunction with a wet scrubber system.

(4) For Method 5 or Method 5B, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160 °C (320 °F).

(5) For determination of PM emissions, an oxygen or carbon dioxide measurement shall be obtained simultaneously with each run of Method 5, Method 5B, or Method 17 by traversing the duct at the same sampling location.

(6) For each run using Method 5, Method 5B, or Method 17, the emission rates expressed in ng/J (lb/million Btu) heat input shall be determined using:

(i) The oxygen or carbon dioxide measurements and PM measurements obtained under this section,

(ii) The dry basis F-factor, and

(iii) The dry basis emission rate calculation procedure contained in Method 19 (appendix A).

(7) Method 9 (6-minute average of 24 observations) shall be used for determining the opacity of stack emissions.

(b) The owner or operator of an affected facility seeking to demonstrate compliance with the PM standards under § 60.43c(b)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

§ 60.46c Emission monitoring for sulfur dioxide

(a) Except as provided in paragraphs (d) and (e) of this section, the owner or

operator of an affected facility subject to the SO₂ emission limits under § 60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO₂ concentrations and either oxygen or carbon dioxide concentrations at the outlet of the SO₂ control device (or the outlet of the steam generating unit if no SO₂ control device is used), and shall record the output of the system. The owner or operator of an affected facility subject to the percent reduction requirements under § 60.42c shall measure SO₂ concentrations and either oxygen or carbon dioxide concentrations at both the inlet and outlet of the SO₂ control device.

(b) The 1-hour average SO₂ emission rates measured by a CEM shall be expressed in ng/J or lb/million Btu heat input and shall be used to calculate the average emission rates under § 60.42c. Each 1-hour average SO₂ emission rate must be based on at least 30 minutes of operation and include at least 2 data points representing two 15-minute periods. Hourly SO₂ emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.

(c) The procedures under § 60.13 shall be followed for installation, evaluation, and operation of the CEMS.

(1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 (appendix B).

(2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 (appendix F).

(3) For affected facilities subject to the percent reduction requirements under § 60.42c, the span value of the SO₂ CEMS at the inlet to the SO₂ control device shall be 125 percent of the maximum estimated hourly potential SO₂ emission rate of the fuel combusted, and the span value of the SO₂ CEMS at the outlet from the SO₂ control device shall be 50 percent of the maximum estimated hourly potential SO₂ emission rate of the fuel combusted.

(4) For affected facilities that are not subject to the percent reduction requirements of § 60.42c, the span value of the SO₂ CEMS at the outlet from the

SO₂ control device (or outlet of the steam generating unit if no SO₂ control device is used) shall be 125 percent of the maximum estimated hourly potential SO₂ emission rate of the fuel combusted.

(d) As an alternative to operating a CEMS at the inlet to the SO₂ control device (or outlet of the steam generating unit if no SO₂ control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO₂ emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEM at the outlet from the SO₂ control device (or outlet of the steam generating unit if no SO₂ control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO₂ emission rate by using Method 6B. Fuel sampling shall be conducted pursuant to either paragraph (d)(1) or (d)(2) of this section. Method 6B shall be conducted pursuant to paragraph (d)(3) of this section.

(1) For affected facilities combusting coal or oil, coal or oil samples shall be collected daily in an as-fired condition at the inlet to the steam generating unit and analyzed for sulfur content and heat content according the Method 19. Method 19 provides procedures for converting these measurements into the format to be used in calculating the average SO₂ input rate.

(2) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples may be collected from the fuel tank for each steam generating unit immediately after the fuel tank is filled and before any oil is combusted. The owner or operator of the affected facility shall analyze the oil sample to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank would be required upon filling. Results of the fuel analysis taken after each new shipment of oil is received shall be used as the daily value when calculating the 30-day rolling average until the next shipment is received. If the fuel analysis shows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the owner or operator shall ensure that the sulfur

content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.

(3) Method 6B may be used in lieu of CEMS to measure SO₂ at the inlet or outlet of the SO₂ control system. An initial stratification test is required to verify the adequacy of the Method 6B sampling location. The stratification test shall consist of three paired runs of a suitable SO₂ and carbon dioxide measurement train operated at the candidate location and a second similar train operated according to the procedures in §3.2 and the applicable procedures in section 7 of Performance Specification 2 (appendix B). Method 6B, Method 6A, or a combination of Methods 6 and 3 or Methods 6C and 3A are suitable measurement techniques. If Method 6B is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent (0.10).

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to §60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, as described under §60.48c(f) (1), (2), or (3), as applicable.

(f) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or conducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator.

§ 60.47c Emission monitoring for particulate matter.

(a) The owner or operator of an affected facility combusting coal, residual oil, or wood that is subject to the opacity standards under §60.43c shall install, calibrate, maintain, and operate a CEMS for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system.

(b) All CEMS for measuring opacity shall be operated in accordance with the applicable procedures under Performance Specification 1 (appendix B). The span value of the opacity CEMS shall be between 60 and 80 percent.

§ 60.48c Reporting and recordkeeping requirements.

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c, or §60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

(4) Notification if an emerging technology will be used for controlling SO₂ emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO₂ emission limits of §60.42c, or the PM or

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affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(j) The owner or operator of an affected facility shall use all valid SO₂ emissions data in calculating %P_s and E_{ho} under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under § 60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating %P_s or E_{ho} pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

§ 60.45c Compliance and performance test methods and procedures for particulate matter.

(a) The owner or operator of an affected facility subject to the PM and/or opacity standards under § 60.43c shall conduct an initial performance test as required under § 60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods.

(1) Method 1 shall be used to select the sampling site and the number of traverse sampling points. The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry square cubic meters (dscm) [60 dry square cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(2) Method 3 shall be used for gas analysis when applying Method 5, Method 5B, or Method 17.

(3) Method 5, Method 5B, or Method 17 shall be used to measure the concentration of PM as follows:

(i) Method 5 may be used only at affected facilities without wet scrubber systems.

(ii) Method 17 may be used at affected facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of Sections 2.1 and 2.3 of Method 5B may be used in Method 17 only if Method 17 is used in conjunction with a wet scrub-

ber system. Method 17 shall not be used in conjunction with a wet scrubber system if the effluent is saturated or laden with water droplets.

(iii) Method 5B may be used in conjunction with a wet scrubber system.

(4) For Method 5 or Method 5B, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160 °C (320 °F).

(5) For determination of PM emissions, an oxygen or carbon dioxide measurement shall be obtained simultaneously with each run of Method 5, Method 5B, or Method 17 by traversing the duct at the same sampling location.

(6) For each run using Method 5, Method 5B, or Method 17, the emission rates expressed in ng/J (lb/million Btu) heat input shall be determined using:

(i) The oxygen or carbon dioxide measurements and PM measurements obtained under this section,

(ii) The dry basis F-factor, and

(iii) The dry basis emission rate calculation procedure contained in Method 19 (appendix A).

(7) Method 9 (6-minute average of 24 observations) shall be used for determining the opacity of stack emissions.

(b) The owner or operator of an affected facility seeking to demonstrate compliance with the PM standards under § 60.43c(b)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

§ 60.46c Emission monitoring for sulfur dioxide

(a) Except as provided in paragraphs (d) and (e) of this section, the owner or

operator of an affected facility subject to the SO₂ emission limits under § 60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO₂ concentrations and either oxygen or carbon dioxide concentrations at the outlet of the SO₂ control device (or the outlet of the steam generating unit if no SO₂ control device is used), and shall record the output of the system. The owner or operator of an affected facility subject to the percent reduction requirements under § 60.42c shall measure SO₂ concentrations and either oxygen or carbon dioxide concentrations at both the inlet and outlet of the SO₂ control device.

(b) The 1-hour average SO₂ emission rates measured by a CEM shall be expressed in ng/J or lb/million Btu heat input and shall be used to calculate the average emission rates under § 60.42c. Each 1-hour average SO₂ emission rate must be based on at least 30 minutes of operation and include at least 2 data points representing two 15-minute periods. Hourly SO₂ emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.

(c) The procedures under § 60.13 shall be followed for installation, evaluation, and operation of the CEMS.

(1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 (appendix B).

(2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 (appendix F).

(3) For affected facilities subject to the percent reduction requirements under § 60.42c, the span value of the SO₂ CEMS at the inlet to the SO₂ control device shall be 125 percent of the maximum estimated hourly potential SO₂ emission rate of the fuel combusted, and the span value of the SO₂ CEMS at the outlet from the SO₂ control device shall be 50 percent of the maximum estimated hourly potential SO₂ emission rate of the fuel combusted.

(4) For affected facilities that are not subject to the percent reduction requirements of § 60.42c, the span value of the SO₂ CEMS at the outlet from the

SO₂ control device (or outlet of the steam generating unit if no SO₂ control device is used) shall be 125 percent of the maximum estimated hourly potential SO₂ emission rate of the fuel combusted.

(d) As an alternative to operating a CEMS at the inlet to the SO₂ control device (or outlet of the steam generating unit if no SO₂ control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO₂ emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEM at the outlet from the SO₂ control device (or outlet of the steam generating unit if no SO₂ control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO₂ emission rate by using Method 6B. Fuel sampling shall be conducted pursuant to either paragraph (d)(1) or (d)(2) of this section. Method 6B shall be conducted pursuant to paragraph (d)(3) of this section.

(1) For affected facilities combusting coal or oil, coal or oil samples shall be collected daily in an as-fired condition at the inlet to the steam generating unit and analyzed for sulfur content and heat content according the Method 19. Method 19 provides procedures for converting these measurements into the format to be used in calculating the average SO₂ input rate.

(2) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples may be collected from the fuel tank for each steam generating unit immediately after the fuel tank is filled and before any oil is combusted. The owner or operator of the affected facility shall analyze the oil sample to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank would be required upon filling. Results of the fuel analysis taken after each new shipment of oil is received shall be used as the daily value when calculating the 30-day rolling average until the next shipment is received. If the fuel analysis shows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the owner or operator shall ensure that the sulfur

content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.

(3) Method 6B may be used in lieu of CEMS to measure SO₂ at the inlet or outlet of the SO₂ control system. An initial stratification test is required to verify the adequacy of the Method 6B sampling location. The stratification test shall consist of three paired runs of a suitable SO₂ and carbon dioxide measurement train operated at the candidate location and a second similar train operated according to the procedures in §3.2 and the applicable procedures in section 7 of Performance Specification 2 (appendix B). Method 6B, Method 6A, or a combination of Methods 6 and 3 or Methods 6C and 3A are suitable measurement techniques. If Method 6B is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent (0.10).

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to §60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, as described under §60.48c(f) (1), (2), or (3), as applicable.

(f) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or conducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator.

§ 60.47c Emission monitoring for particulate matter.

(a) The owner or operator of an affected facility combusting coal, residual oil, or wood that is subject to the opacity standards under §60.43c shall install, calibrate, maintain, and operate a CEMS for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system.

(b) All CEMS for measuring opacity shall be operated in accordance with the applicable procedures under Performance Specification 1 (appendix B). The span value of the opacity CEMS shall be between 60 and 80 percent.

§ 60.48c Reporting and recordkeeping requirements.

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c, or §60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

(4) Notification if an emerging technology will be used for controlling SO₂ emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO₂ emission limits of §60.42c, or the PM or

content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.

(3) Method 6B may be used in lieu of CEMS to measure SO₂ at the inlet or outlet of the SO₂ control system. An initial stratification test is required to verify the adequacy of the Method 6B sampling location. The stratification test shall consist of three paired runs of a suitable SO₂ and carbon dioxide measurement train operated at the candidate location and a second similar train operated according to the procedures in §3.2 and the applicable procedures in section 7 of Performance Specification 2 (appendix B). Method 6B, Method 6A, or a combination of Methods 6 and 3 or Methods 6C and 3A are suitable measurement techniques. If Method 6B is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent (0.10).

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to §60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, as described under §60.48c(f) (1), (2), or (3), as applicable.

(f) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or conducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator.

§ 60.47c Emission monitoring for particulate matter.

(a) The owner or operator of an affected facility combusting coal, residual oil, or wood that is subject to the opacity standards under §60.43c shall install, calibrate, maintain, and operate a CEMS for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system.

(b) All CEMS for measuring opacity shall be operated in accordance with the applicable procedures under Performance Specification 1 (appendix B). The span value of the opacity CEMS shall be between 60 and 80 percent.

§ 60.48c Reporting and recordkeeping requirements.

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c, or §60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

(4) Notification if an emerging technology will be used for controlling SO₂ emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO₂ emission limits of §60.42c, or the PM or

content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.

(3) Method 6B may be used in lieu of CEMS to measure SO₂ at the inlet or outlet of the SO₂ control system. An initial stratification test is required to verify the adequacy of the Method 6B sampling location. The stratification test shall consist of three paired runs of a suitable SO₂ and carbon dioxide measurement train operated at the candidate location and a second similar train operated according to the procedures in §3.2 and the applicable procedures in section 7 of Performance Specification 2 (appendix B). Method 6B, Method 6A, or a combination of Methods 6 and 3 or Methods 6C and 3A are suitable measurement techniques. If Method 6B is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent (0.10).

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to §60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, as described under §60.48c(f) (1), (2), or (3), as applicable.

(f) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or conducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator.

§ 60.47c Emission monitoring for particulate matter.

(a) The owner or operator of an affected facility combusting coal, residual oil, or wood that is subject to the opacity standards under §60.43c shall install, calibrate, maintain, and operate a CEMS for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system.

(b) All CEMS for measuring opacity shall be operated in accordance with the applicable procedures under Performance Specification 1 (appendix B). The span value of the opacity CEMS shall be between 60 and 80 percent.

§ 60.48c Reporting and recordkeeping requirements.

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c, or §60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

(4) Notification if an emerging technology will be used for controlling SO₂ emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO₂ emission limits of §60.42c, or the PM or

opacity limits of § 60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS using the applicable performance specifications in appendix B.

(c) The owner or operator of each coal-fired, residual oil-fired, or wood-fired affected facility subject to the opacity limits under § 60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility which occur during the reporting period.

(d) The owner or operator of each affected facility subject to the SO₂ emission limits, fuel oil sulfur limits, or percent reduction requirements under § 60.42c shall submit reports to the Administrator.

(e) The owner or operator of each affected facility subject to the SO₂ emission limits, fuel oil sulfur limits, or percent reduction requirements under § 60.43c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.

(1) Calendar dates covered in the reporting period.

(2) Each 30-day average SO₂ emission rate (nj/J or lb/million Btu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.

(3) Each 30-day average percent of potential SO₂ emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken.

(4) Identification of any steam generating unit operating days for which SO₂ or diluent (oxygen or carbon dioxide) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and a description of corrective actions taken.

(5) Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective

actions taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.

(6) Identification of the F factor used in calculations, method of determination, and type of fuel combusted.

(7) Identification of whether averages have been obtained based on CEMS rather than manual sampling methods.

(8) If a CEMS is used, identification of any times when the pollutant concentration exceeded the full span of the CEMS.

(9) If a CEMS is used, description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specifications 2 or 3 (appendix B).

(10) If a CEMS is used, results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), or (3) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

(f) Fuel supplier certification shall include the following information:

(1) For distillate oil:

(i) The name of the oil supplier; and

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in § 60.41c.

(2) For residual oil:

(i) The name of the oil supplier;

(ii) The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;

(iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and

(iv) The method used to determine the sulfur content of the oil.

(3) For coal:

(i) The name of the coal supplier;

(ii) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the sample was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected);

(iii) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and

(iv) The methods used to determine the properties of the coal.

(g) The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day.

(h) The owner or operator of each affected facility subject to a Federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under § 60.42c or § 60.43c shall calculate the annual capacity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of the calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

[55 FR 37683, Sept. 12, 1990, as amended at 64 FR 7465, Feb. 12, 1999]

Subpart E—Standards of Performance for Incinerators

§ 60.50 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to each incinerator of more than 45 metric tons per day charging rate (50 tons/day), which is the affected facility.

(b) Any facility under paragraph (a) of this section that commences construction or modification after August 17, 1971, is subject to the requirements of this subpart.

[42 FR 37936, July 25, 1977]

§ 60.51 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) *Incinerator* means any furnace used in the process of burning solid waste for the purpose of reducing the volume of the waste by removing combustible matter.

(b) *Solid waste* means refuse, more than 50 percent of which is municipal type waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustibles, and noncombustible materials such as glass and rock.

(c) *Day* means 24 hours.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 20792, June 14, 1974]

§ 60.52 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this part shall cause to be discharged into the atmosphere from any affected facility any gases which contain particulate matter in excess of 0.18 g/dscm (0.08 gr/dscf) corrected to 12 percent CO₂.

[39 FR 20792, June 14, 1974]

§ 60.53 Monitoring of operations.

(a) The owner or operator of any incinerator subject to the provisions of this part shall record the daily charging rates and hours of operation.